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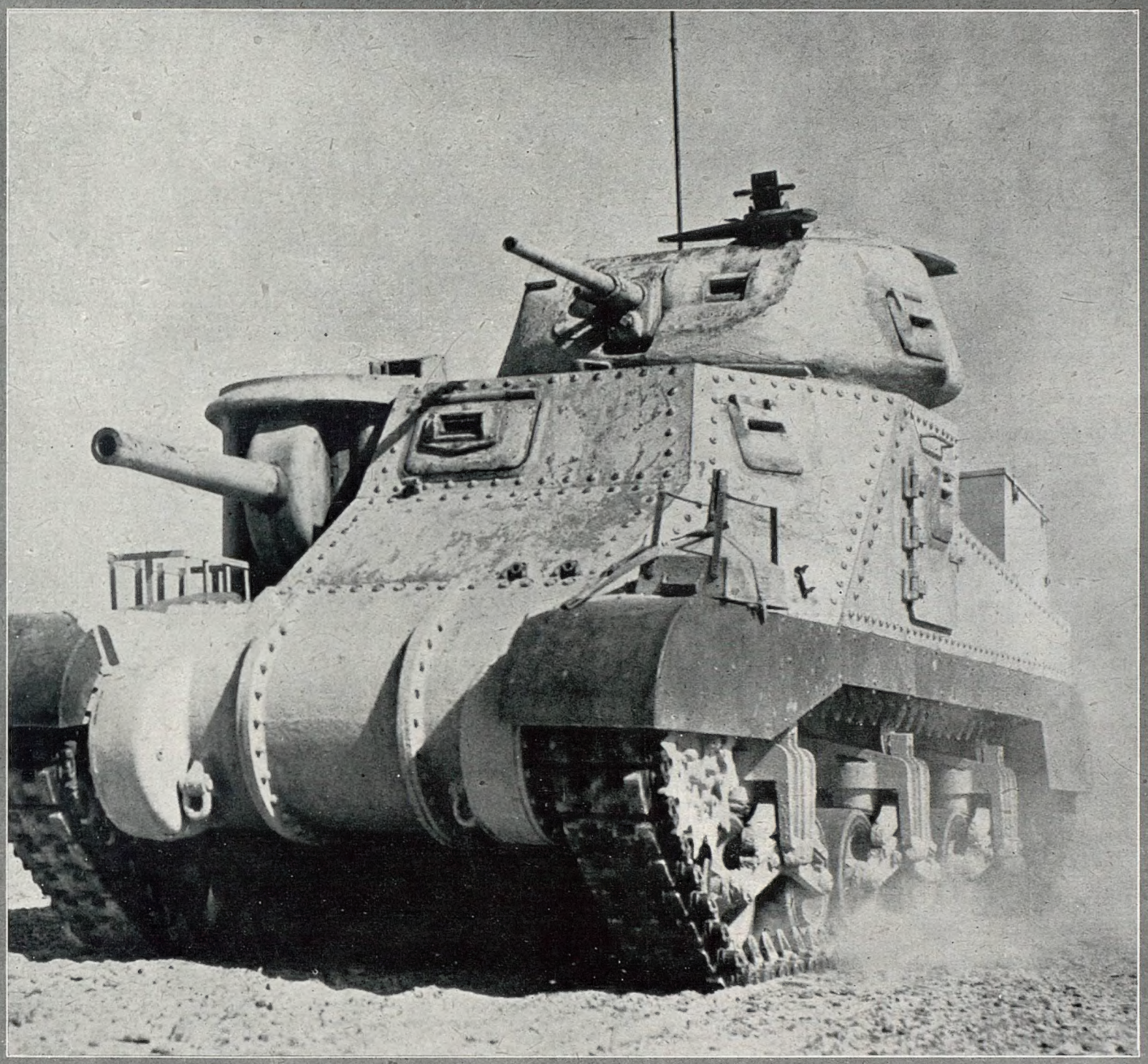
J.M. BATEMAN

G.E.1104.A

Volume CLXIX No. 2212 The SPHERE, London, June 13, 1942

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly



THE AMERICAN-BUILT "GENERAL GRANT" TANK, WHOSE GREAT HITTING POWER IN THE LIBYAN DESERT PROVIDED ROMMEL WITH ONE OF HIS BIG SURPRISES.
These new vehicles were first engaged in the Battle of Knightsbridge and have been in action ever since

It has been publicly stated that in our desert operations of a year ago a large proportion of our tanks "became unserviceable on the road before ever they reached the battlefield." Such a thing is not likely to happen again in Libya! The hitting powers of the new "General Grant" must have come as a very unpleasant surprise to General Rommel although, of course, the presence of these new medium tanks in the Middle East was not unknown to the enemy. The "General Grant" is a compact monster which does not altogether suggest its weight—28 tons: in addition to a gun of 37 mm., it also mounts a 75-mm. gun. Both these weapons are clearly seen in our picture (just released for publication by the Ministry of Information). The turret above bulges "like an enormous penny bun." In the tank battles around Knightsbridge our armoured forces for the first time came against German armour on equal terms. "I have yet to hear," wrote Mr. Alexander Clifford a few days ago in a brilliant dispatch from the front line, "anyone complaining that the Grants did not come up to the highest expectations. Turret, 75-mm. gun, and quality of armour plating were three points most generally praised"

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A WAR NEWSLETTER —No. 145

1, NEW OXFORD STREET, W.C.1.

Libya.— Something of the strain, still very little of the nature and technique of desert fighting by armoured units in broiling heat and dust, has filtered to us through the dust-storms of Cyrenaica. Rommel is a doughty fighter whom our men respect, and there is evidence that "old-world" chivalry has been found on either side. Certainly, after the first round (which went in our favour on the whole, since Rommel's first objective failed) the enemy "did not know when he was beat." All we *do* know of this new sort of warfare is that it calls for courage, indomitable endurance and coolness of the first order from the fighting men, that the issue is never decided until the enemy is back where he started from, and that even then he may catch you bending over your spoils and turn the tables on you, and consequently that it is absolute insanity to start hallooing before you are out of the wood. It was to be all right in that respect this time. There were to be no halloos, no boasts, no premature congratulations to all concerned. . . . Has it been all right this time? We owe it to the men who are doing the job in the dust and heat with sweat and blood to keep silence even from good words, and to await *their* signal for the release of the *feu de joie*.

THE CONFIRMATION OF THE ELECTION OF DR. C. F. GARBETT, Archbishop-Elect of York at Southwark Cathedral

For the first time in history, an Archbishop's election has been confirmed outside the City of London: this was when the election of Dr. Cyril Garbett, Bishop of Westminster, was confirmed as Archbishop of York at Southwark Cathedral, where he had formerly served as Bishop. This departure from ecclesiastical procedure was at Dr. Garbett's own request. The picture above shows Dr Temple, the new Archbishop of Canterbury, signing the Articles of Confirmation: the Archbishop of York-elect faces him. The Bishops seated alongside Dr. Temple, are, from left to right: the Bishops of Blackburn, Manchester, London, Durham and Carlisle.

With a Thousand Bombers and All.

—The great air raid on the Rhineland can speak for itself. I find not the slightest ground for glorifying the results, albeit every reason for praising the brains which organised it and the courage and resolution which carried it out. The expedition was an instrument of God's justice on criminals, given into the hands of the victims. It enforced the eternal law that he who draws the sword shall perish by the sword. It is the first signal instalment of an exemplary sentence following the verdict of humanity in the Highest Court of Justice, and the account runs on. Legitimately, we may consider the dilemma of that arch-criminal. Already he is in mental torture; we cannot punish him more than he is now punished. He has no remedy, no counter; no evasion of his punishment now remains for him. The only counter to the second front (the British air "blitz" on Germany) is to destroy the bomber sources and bases in Britain. That can be done only by invasion or by a new night-and-day bombing "blitz" on a scale as large as our own. A condition precedent to either of these alternatives is to liquidate the Russians or to stabilise that front. The Russians are not responding to liquidation, and refuse to be stabilised. And Rommel and Malta use up first-line troops and air power in plenty. England is still crammed full of highly-trained, regular divisions, spoiling for a fight. Already the Russian summer campaign is gravely behind schedule; the oil drive is postponed, if not scotched; Rommel has not attained his right-wing objectives for the great drive east. Hitler cannot disengage enough divisions and air squadrons to justify a reasonable prospect of success in a land or air attack on Britain, since there is a condition precedent to the condition precedent itself; before he can liquidate our bombers, or land his air-borne, bridge-head troops, he must liquidate our fighters. And, circumstanced as he is to-day, he can't extricate himself at will from any one venture or front, to find the men and machines to counter adequately an urgent danger elsewhere. He can only nibble everywhere. He is caught in the net which he laid for others—for rather too many others. Meanwhile, Hitler can, of course, stage a reprisal for Cologne on something like the same scale, and we should suffer grievously enough from it. But he can effectively do so only after infinite pains and regroupings, and only by withdrawing scores of squadrons from fronts where they are most vitally needed for the continuance of his elaborately-planned ventures elsewhere.

Lest We Forget.

"For frantic boast and foolish word,
Thy mercy on Thy people, Lord."

I am not an admirer of all Kipling's poetry. I go so far as to say that his poem on Africa is the sorriest stuff ever put out under that name. But he had his moments of great inspiration and splendour and sense, and his "Recessional" was wisdom and prophecy written for our learning, and still unlearned to-day when the Empire he wished to safeguard is in dire jeopardy. Never before have we realised so vividly the folly of frantic boast and the prevalence of foolish words. The fine temper, the steady resolve, the essential unity, the courage and comradeship and self-sacrifice of our great nation—all these noble qualities are being obscured, tarnished, misinterpreted, by the flood of boasts and foolish words from every quarter. Why is it that some of us "support Churchill but do not swallow his Government"? It is said to be an impossible, illogical, unpatriotic thing to do. It is *done* because, when Churchill speaks, he rejects frantic boast and foolish word, and his speeches fall like refreshing rain or blow like fresh air upon our befogged and tired minds, while the speeches of some of his, minions—contradictory, diffuse, ill-judged and uninformed—poison and confuse us and sling mud on the panache of our faith and pride in the greatness of our race and cause. Look where you will, you will find that a cross-section of every institution in the land is engaged on this heady, foolish practice of the Government, the Ministries, Parliament, Press, party and Labour organisations, public and private individuals; a Babel of sound and fury signifying nothing constructive. Is it too late to reform? Is this, indeed, that freedom for which our youth is giving its life? If it be so, it is dying for a rotten cause. We *know* that the cause is noble and the sacrifice worth while. Must we for ever vulgarise it, cheapen it, dirty it? Let us resolve that this time it shall be all right. If the fortune of war should turn to the Allies' advantage in Russia or Libya, let us refrain from boasts—remembering how the tides of war for ever shift, remembering that this is a war of attrition and not of tactic, and that Time, not space, is the final factor. If the tide turn against us once more, let us remember the same truths and refrain from growls and recrimination and victimisation and justification. Let us treat "those two impostors just the same," with dignity and silence.

The Faith of an Englishman.

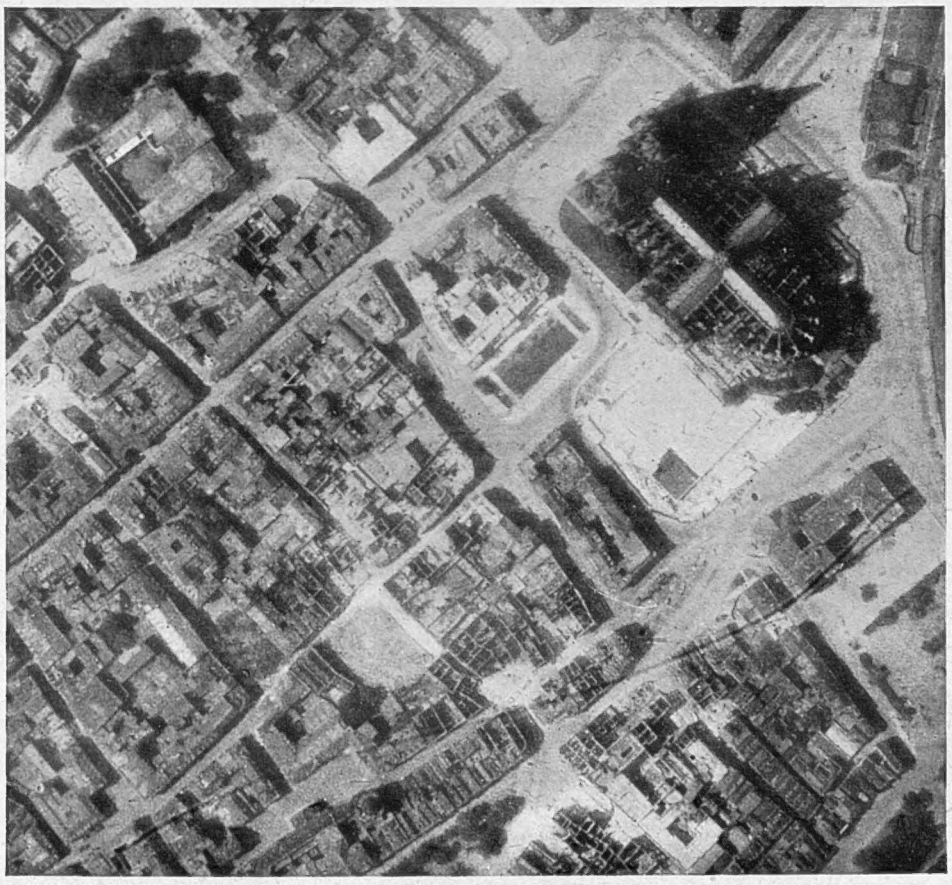
—I am one of those who sustain their faith in victory (even in the darkest hours) in a passionate belief and pride in the greatness of our race, as revealed by the character of the "ordinary" men and women of every class; and sustain my spirit and will to victory in a still more passionate belief in the virtue of individual liberty. True; I know too little of the *industrial* worker, but I believe that the more I learned, the more would my faith broadly be sustained, despite shocks and setbacks from growls and heady words. True, also, that among rural workers, among whom my experience ranges, I have shocks and setbacks. Among every ten there is, even to-day, one who in the last two years has felt not the slightest *shame* at playing no part whatever in his country's defence, but has pursued his peacetime avocation and habits, as far as may be, with an easy conscience. Among such "tenth men" are some of the new Home Guard pressed men. ("Bit awkward for me having to take orders from one of my own employees.") But these "tenth men" only underline the worth of the nine silent, resolute, overworked men who joined up at the call and have laboured overtime ever since, to fit themselves to fight for liberty. I have read some English history, and taken notes during two World Wars, and as a result I do not spring forward with exuberation when the call comes: "Let us now praise *famous* men." Hero-worship I find difficult—where those heroes are in *Who's Who*. (It is other with the unknown heroes who are *not*.) Leadership is difficult, it grows more difficult with every advance in public education and political enfranchisement. One leader-hero in a century is about all we can expect (or have achieved).

And an Englishman's Castle.

—It is my belief that the common man has pulled us out of almost all our major crises and will do so this time. And it is my belief that the common man will win the peace for us; and the winning of it will depend on his mental reactions after this gruelling war. If, as I believe, his mind will react to revolt against certain features of our past which have become intolerable (to me), then I think he will pull off the peace also and give himself and us a chance of a little happiness again. Among these intolerable things are Government and bureaucratic dictation and regimentation carried inevitably to excess; propaganda as an instrument in all forms of activity; that part of "capitalism" which is snobbery, bossdom, and exploitation of the many by the slick few; and, above all, all those outworn forms of party political practice and strategy under which we have suffered too long. I believe the common man will decide that sudden conversions and swift revolutions, political or economic, do not suit our national character, and that there was good as well as bad in our old institutions and ways of life. And he will turn his back on any new political theory and nostrum—be it in the direction of Communism or (surely!) Fascism—which implies the continuation beyond the war of unlimited State and bureaucratic control, of non-stop direction and advice broadcast to every home by official experts and directors, and generally of interference with his right to "go to the devil" or to Heaven in his own way. I believe that this reaction will guide the minds of those who have the best claim to-day to the title of underdog. They will prefer liberty to "equality" and non-interference to a State-regimented scheme of social security and well-being. The ordinary man will be so fed up with questionnaire, inspection, regulation and ban, that he may "slip back" by reaction to that fierce passion for individual liberty, privacy and initiative which were features of the bad (and not so bad) old days. Above all, he will view with distrust any political or social reforms put out under the ægis of any of the old, tattered party banners. We mean to be free men, not State-aided, State-vetted, robots. Back to Methuselah! Unless I am all wrong, we ordinary men and women have been fighting this desperate war above all to secure this very principle of an Englishman's castle, and in the course of the struggle we have shed a hundred prejudices and misunderstandings, and found that there is good and bad in all theories, all classes, all institutions; but that the maximum of *individual liberty* and initiative are the only things wholly good.

THE OLD STAGER

COLOGNE, JUNE 1942: WIDESPREAD DAMAGE IS REVEALED IN THIS PICTURE TAKEN BY THE R.A.F. It shows a section of the modern part of the city—the broad, tree-lined street running across from top to bottom being the Luxemburg-Strasse



COLOGNE CATHEDRAL (top right-hand corner) AND PART OF THE OLD TOWN, which was very heavily bombed (including the Hohe-Strasse, described as "the busiest street in Cologne")

FIRST PICTURES FROM COLOGNE

Taken by Reconnaissance Aircraft of the R.A.F.

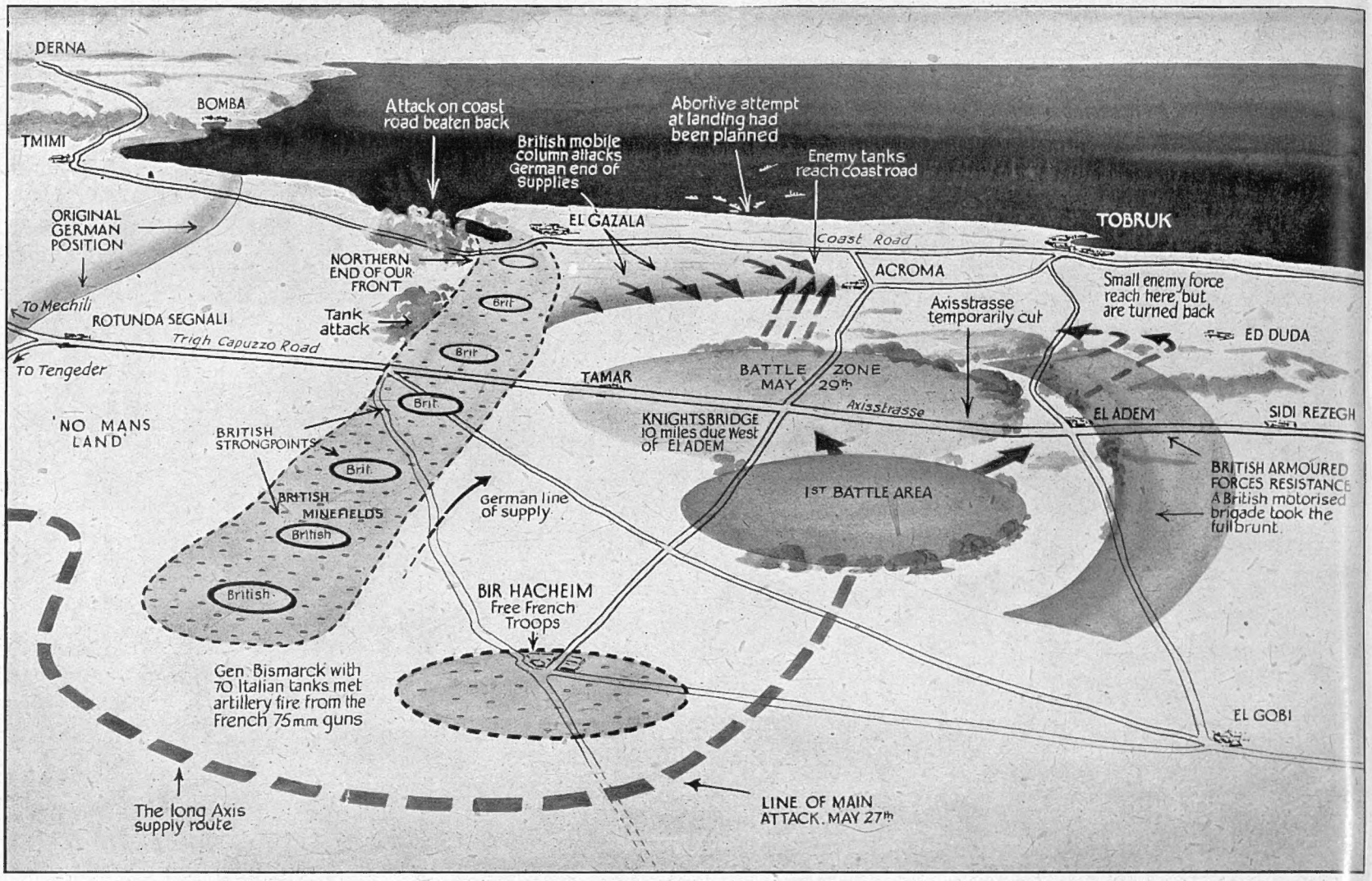
The attack on Cologne on the night of May 30-31 created history. For the first time in air warfare over 1,000 bombers were sent to the attack of a single objective—Cologne. The force despatched included our biggest bombers, and every aircraft participating had been made in Britain. Cologne is (or perhaps one should say—was) the second largest city in Germany, the centre of great engineering and chemical industries, and the home of Diesel-engine and explosives factories: it is the hub of a network of railways and roads connecting Germany with the West

After the terrific raid, photographic reconnaissance was attempted, but the first effort to take pictures was hampered by a pall of smoke, cloud and cloud-shadow which lay over the city. Due to these conditions, the first photographs gave only a general impression of the damage. Later pictures were, however, secured; and two of them are reproduced here: these indicate more clearly the extent of the destruction wrought. Many fires were still burning when the reconnaissance took place: no part of the city escaped, and the heavily-damaged areas total some 5,000 acres (as a ready means of reference—Hyde Park *and* Kensington Gardens together cover an area of only 636 acres!). In addition to isolated points of damage, there are six major areas of devastation in the old city.

"Gone for ever is the city we knew," lamented the *Koelnische Zeitung* a few days after the raid: this upper picture shows how true this is! The Luxemburg-Strasse, great tree-lined avenue in the modern part of Cologne, is now bordered on both sides by whole blocks of buildings torn down to the ground by high explosives and burnt out by incendiaries.

The picture on the left shows the Old Town surrounding Cologne Cathedral. The latter appears to have escaped all but superficial damage caused by blast; but the street running from the Cathedral diagonally to the bottom left of the picture is the Hohe-Strasse, described by *Baedeker* as the "busiest street in Cologne." This, and the business area which surrounds it, has suffered irreparable damage.

It must be understood that these pictures are only two of many brought back by our reconnaissance aircraft. It is the intention of the Air Ministry to release others, pin-pointing the damage caused, when they have been examined and interpreted by R.A.F. experts.



1. **THE BRITISH FORTIFIED LINE FROM GAZALA, with the great strongpoint of Bir Hacheim held by the Free French at its southern terminal. The main enemy attack was by way of the south, around Bir Hacheim, to the Knightsbridge area where the main battle was joined after German raiding columns had been forced back from Adem and Duda and after the failure of the attempted sea landing between Gazala and Tobruk**—*Drawing by E. G. Lambert*

The BATTLE of the "CAULDRON"

The Three Phases of the Great Libyan Struggle, Showing how the Enemy Attack Developed

—Three Special Sphere Diagrams and Notes

PHASE I.

For some time during the month of May an attack by General Rommel upon the British position, south of El Gazala had been anticipated. It was actually on the night of May 26-27 that the general assault began—starting from the German positions close under the rising ground of the main Cyrenaica plateau. The attackers crossed the ten to fifteen miles of No Man's Land, and attacked towards Tobruk, the capture of which appeared to be the enemy's main objective, by rounding the southern end of the British advanced defensive line. The latter extended from the sea at El Gazala for some seventy miles southwards to the neighbourhood of a terminal strong point known as Bir Hacheim. This line consisted of a series of "hedgehog" strong points, more or less circular in form, linked together with barbed-wire entanglements and a series of mined areas. (The "hedgehogs" are by no means just a "mined area" as some accounts might lead one to suppose.) When morning broke on the 27th a strong composite armoured column, including an Italian mobile corps, had rounded Bir Hacheim; crushing the resistance of an Indian motorised brigade group, they pressed on to the shallow rolling plain between El Adem, and a track junction which had come to be known locally as Knightsbridge.

In the first diagrammatic view, the German force is seen advancing to this position. The first contact with the main British armoured forces took place while this forward movement was in progress; soon a continuous running fight developed, tank guns blazing from each side like a naval conflict of the past. The forward light armoured units attempted to dash ahead from the main enemy forces, and some got as far east as Ed Duda, a small body of tanks actually raiding the northern shore road where it passes along the escarpment overlooking the sea. About this time an abortive attempt at a sea landing took place between Tobruk and El Gazala, but was completely repulsed. Another German attack which had been made against our positions in the neighbourhood of El Gazala had also been repulsed, together with an attempt to march along the shore itself. The eastward dashes were effectively checked so that soon the battle was being confined within an area bounded by the British fortified line to the west and the British mobile forces to the east.

PHASE II.

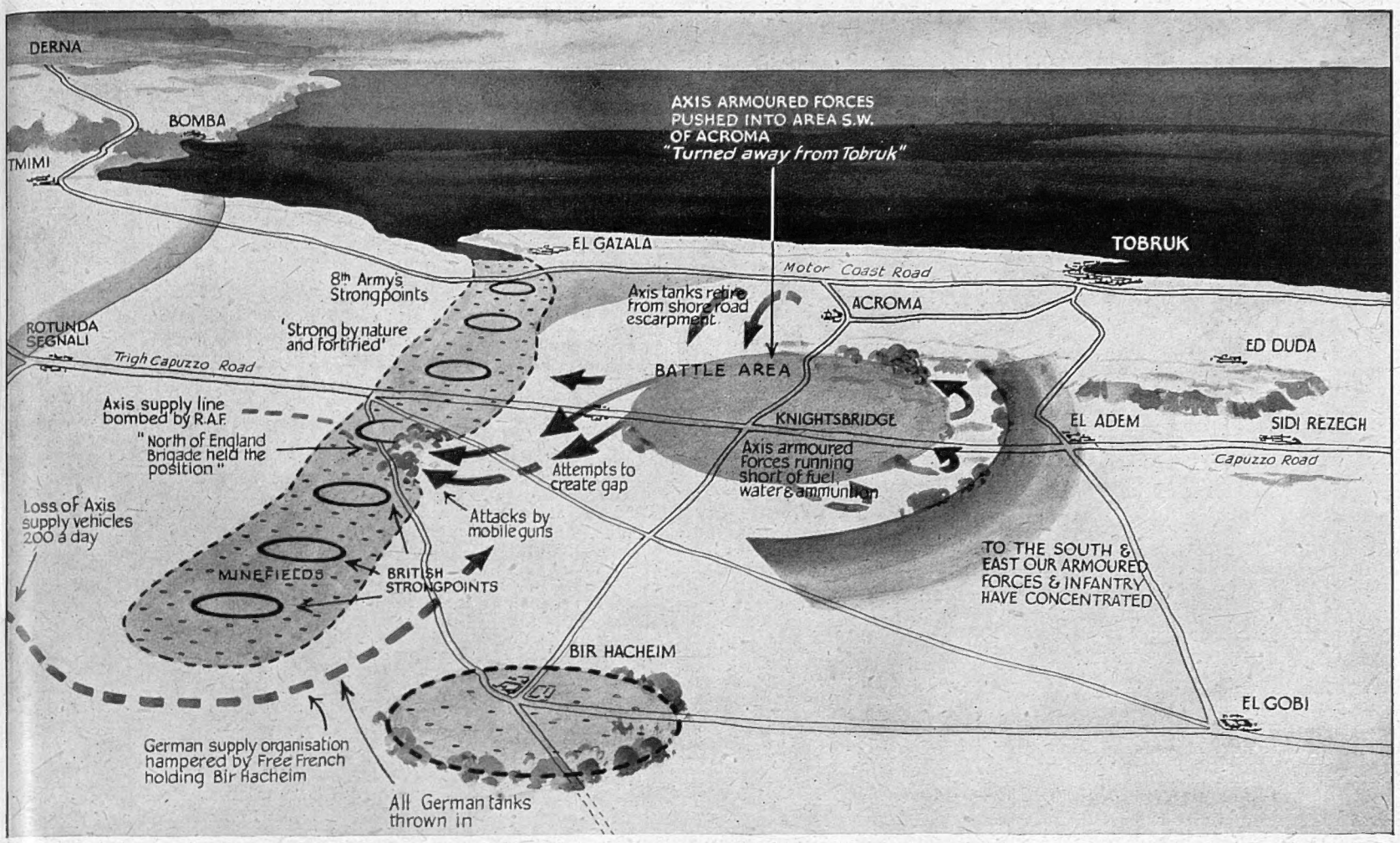
When the second phase of the Libyan battle opened a fiercely contested struggle between the opposing tank forces developed in the district surrounding Knightsbridge: this area is traversed by one of the main desert highways, known as the Trigh-Capuzzo. To the north lay Acroma, from which the advanced enemy tanks retired after the failure of the sea landing. The battle continued to rage fiercely during the concluding days of May, and towards the end of the fourth and fifth day of the struggle the enemy found himself running out of ammunition and water. His supplies had to come round the long southern route, by way of Bir Hacheim (where the aggressive resistance of the Free French forces much hampered his columns): consequently the Germans were compelled to seek some shorter line of supply. This led to the attempt to smash through the British fortified line at one or more points, to the south of the Capuzzo road. The British mobile guns sought to counter this movement, and took a great toll of the enemy while he forced his way westward through the British mined area.

THIS IS KNIGHTSBRIDGE, LIBYA: The scene of the great tank battle—which is just a junction of desert tracks with only a signpost to indicate its existence! This point was the core of British resistance and the rallying-point of our armoured forces during the struggles which led up to Rommel's retirement to the west

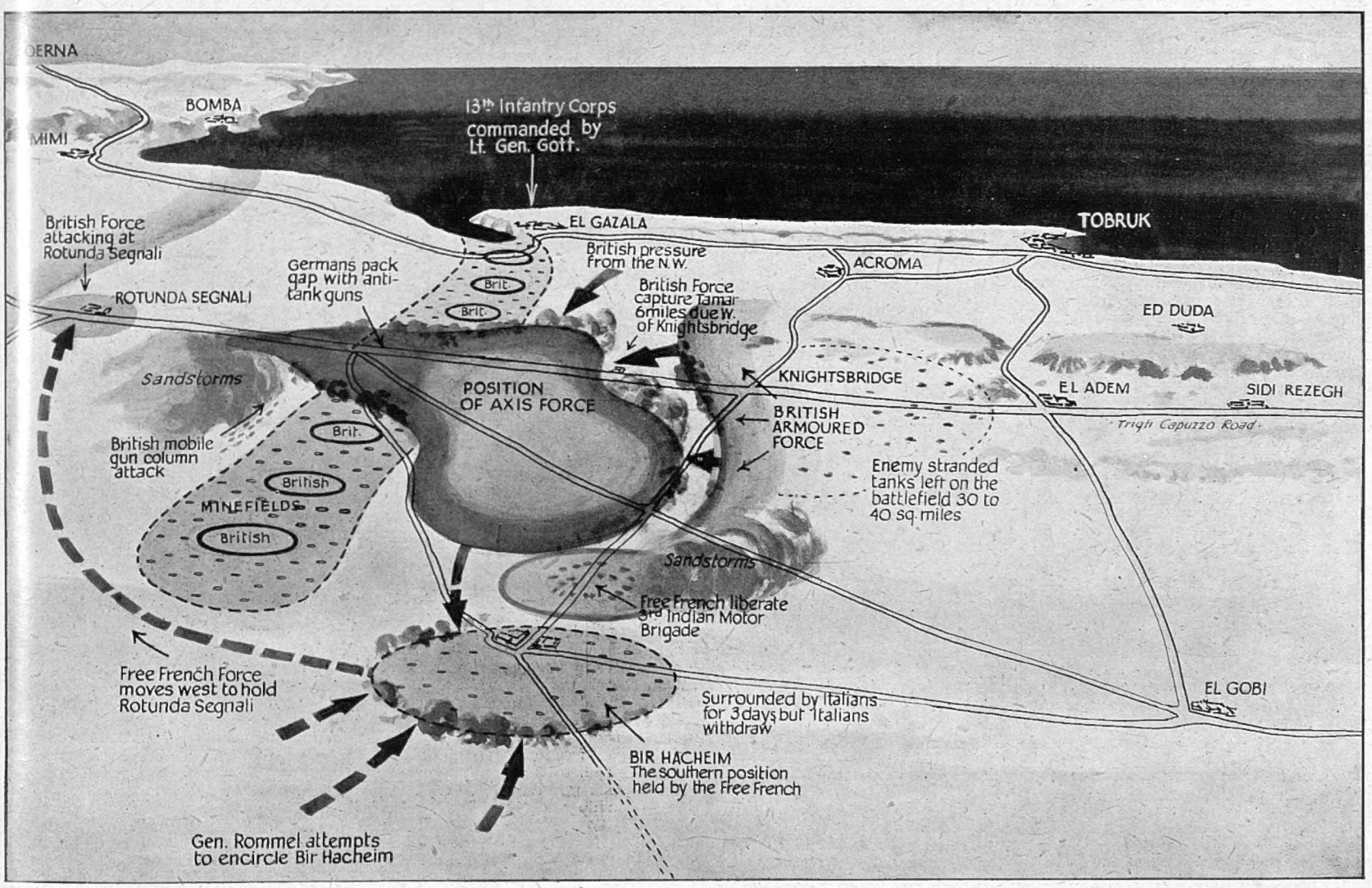
Lieut.-General W. H. E. Gott, Commander of the British 13th Corps, whose infantrymen held on to the Gazala line positions

Lieut.-General C. Willoughby Norrie, Commander of the 30th Armoured Corps, which played a great part in the Battle of Knightsbridge

Major-General F. W. Messervy, commanding the 7th Armoured Division, who was reported to have been captured by the enemy



2. THE GREAT BATTLE OF KNIGHTSBRIDGE AT ITS HEIGHT: All the enemy forces have been driven in to one and the same area, with only one alternative left to them—to attempt to force a gap through the British defensive line to the west. This was the beginning of the "Battle of the Gaps," with German supplies and reinforcements having to come up by way of Bir Hacheim, still held by the Free French—*Drawing by E. G. Lambert*



3. THE GERMANS FORCE THEIR WAY THROUGH TO THE WEST AND "THE CAULDRON" COMES INTO BEING. The Axis forces hold an area "shaped like a huge tadpole," with strong British pressure from all sides: here the enemy were pounded unmercifully by artillery and tank fire, whilst their communications were seriously hampered by the attack on Rotunda Segnali to the westward—*Drawing by E. G. Lambert*

PHASE III.

When the dust which hung for days over the main battle area again lifted, the actual battlefield had moved to the westward. The enemy forced a passage through the British defended line, having crushed, or forced back, part of the organised defence. But as the German columns converged upon this opening they suffered loss, not only from mines, but from tank pressure from the north and from the artillery and armoured units on the south. Looked at from above, the area held by the enemy at this time was described as resembling a huge tadpole, with the tail protruding through the gap. So fierce was the fighting at the gap itself that this area was christened "the Cauldron." In the meanwhile, Italian armoured forces had attempted to crush the resistance of the Free French at Bir Hacheim, without avail. In fact, the French succeeded in rescuing a part of the Indian motor brigade already referred to. British mobile guns passed rapidly round to the west; and in a dash still farther to the west British forces were able to capture and hold the desert strong-point of Rotunda Segnali which occupies a strategic position on the enemy's lines of communication and supply.

BRITAIN'S LAST CHANCE TO LEAD EUROPE

When the Present Conflict is All Over, the Liberated Nations of the Continent will Look to this Country, Backed by the United States, for Guidance. This will be Our Opportunity to Retrieve Past Errors and Build Upon Firm Foundations for the Future

By FERDINAND TUOHY

"WE might have said we live in an island, and care not what may be done on the Continent; that we think only of making money, and of defending our own shores; and that we leave to others the task of settling as they like the affairs of the continent of Europe. But such has not been the policy of the wisest and greatest statesmen who have taken part in the government of this country." Accordingly, Palmerston went into Congress in 1860 "with a well-matured and deliberately formed policy, and with the intention of endeavouring to make that policy prevail"; and the result was the creation of the Italian State which Mussolini was to range against its principal creator eighty years later.

Yet it has to be admitted that time and again "this country" behaved quite differently, and with consequences disastrous to Europe, and, eventually, to itself also. Intervening again and again abroad, and always decisively, Britain turned aside in semi-detached manner as soon as peace came to be re-established. To name three glaring instances, it was so after the Seven Years War; again after the Napoleonic Wars; and after the conflict of 1914-18. Excuses there doubtless were—as in 1920, when the United States ducked both the guarantee to France and the whole League of Nations structure. But it is hard to deny that Britain then returned to the old ways only too easily and readily.

Our unkindest critics had a word for it. They said that after sallying forth and once again using the Continent as a glacis upon which to defend Britain, we re-entered the homeland carrying the swag—chiefly the German colonies—convinced that by playing the balance of power game we should encompass an Europe sufficiently at loggerheads to remove the need for our spending large sums on keeping strong. More kindly critics read into our renewed retreat into semi-isolation, a chronic carelessness, an irresponsible refusal to live up to greatness acquired, which others were ready to grant.

M. Spaak, the Belgian Foreign Minister, clearly belongs, right now, in London, to this latter class of critic, and I will make bold to say that very few of the United Nations whom we celebrate this week-end, but would agree with him. M. Spaak is a hard-headed realist and he eschews sentiment when he says it is vital "that England should not underestimate either the part she has played in the war or her predominating share in securing the victory. She must think of herself as belonging to Europe. Europe is ready to accept England's guidance, but Europe will not forgive her if her policy is hesitant."

"Will not forgive her"—think of those words, for they strike at the root of the matter. They mean "Europeans will turn against Britain if she lets the Continent down again without due cause." And by "letting down" is principally implied, I should imagine, turning away again towards the Dominions and the Colonies to the hurt and ultimate renewed catastrophe of the Continent, to which England is physically linked by the closest, 20 miles, Dover-Calais tie, and never more so than in an air age, when that distance becomes a gnat's hop of a few minutes' duration. It is, indeed, fully sustainable that the best way for Britain to ensure safety and happiness for the Commonwealth and Colonies is for herself to secure safety and happiness in Europe, by leading it.

The crashing of Hitler's New Order will provide a brilliant moment of history for the people of Britain to retrieve the past and found the future. No country can ask for more goodwill with which to operate. Here in Britain to-day is the nucleus of that Europe wishing to be guided. For two years and more, men and women have lived amongst us, who, when they return to their several lands, will not lightly forget that their sole chance of freedom and life once lay on these shores. We would have to be very remiss to forfeit their goodwill. They may not see eye to eye with us. We have queer ways. A painful experience for those whose lives have lain abroad has been to hear criticism of the "rotten" military and political systems of foreigners, oblivious of the fact that we ourselves had in latter years the poorest political and military set-up, and that but for Dunkirk not being joined to Deal, we should have probably finished up with a form of "Vichy" located somewhere near Harrogate! Nevertheless, these Belgians and Dutch, Norwegians and French, Czechs, Poles, Yugoslavs, Greeks, and others besides, "free" Danes, Italians, Rumanians and Austrians, will be far readier to listen to what Britain has to say than ever were their forbears in the past. And they will count in their own countries.

Nor is it to wander in Elysium to state this high probability: that the United States will back British leadership in Europe as long as it shows itself in tune with the altered times. Two Americans of to-morrow, Vice-President Wallace and Assistant-Secretary of State Sumner Welles, have been sketching what they would like to see, and it happens to be also what a fair number in Britain would like to see. For Mr. Wallace, the French Revolution was never finished and the peace settlement and organisation should be the last lap of that great turmoil. This should be very welcome to the French, who might otherwise be among the more difficult cases—especially if we put on any "dog" about having rescued them.

"Perhaps the United States will adumbrate certain liberties and duties, but no nation will be accorded the divine right to exploit other nations. The older nations will have the privilege of helping younger ones to get going . . . but there must be neither military nor economic imperialism. The methods of the nineteenth century are no longer applicable to the Peoples' Century." Cartels must submit to international control and to that of governments, in the interest of the common man.

For Mr. Sumner Welles, "The voice of those who are doing the fighting, and the voice of those who produce the arms with which we fight, must be heard and must be heeded." These voices will demand the immediate disarmament during the armistice of all nations threatening aggression outside of their frontiers, "and that the United Nations undertake the maintenance of an international police power to ensure freedom from fear while a general security is built up." Mr. Welles also desires the United Nations to become the organism for cutting through the social and economic chaos following the end of the war, and so out into the broad field of reconstruction based, this time, on the fundamental rights of the peoples of the earth. And he asks: "Can the democracies again afford to permit national policies to be dictated by self-seeking minorities of special privilege?" The great problem ahead is not so much one of production as of providing the mechanism of distribution and of purchasing power.

Finally: "Discrimination between peoples because of their race, creed or colour must be abolished. The age of imperialism is ended. The rights of a people to their freedom must be recognised as the civilised world has long since recognised the right of an individual to his personal freedom." That is something particularly for Britain to think about, with Indian and other problems unsolved, if she is to take on Europe's leadership without hypocrisy.

And what of Russia in all this? Let me quote again from America: "People ask who are these Communists. People say they are a Godless race, but if they die in their thousands for their ideals, they are not Godless. And undoubtedly we are in the era of collectivism. We will not go back to the old days of a few men making a hundred million dollars in business about which they know nothing, while the little men stand on the bread-line. We have no need to fear Russia after the war. The Russians will be busy rebuilding their nation, too busy to interfere with us. If Communism makes such men and morale as we see on the Russian front, then we should respect it."

No statesman said that, but one whom the world applauded in his role of the harmless little fellow always up against it. Charlie Chaplin would probably agree that what a victorious Russia does or doesn't do, will depend in good measure on what others do or leave undone.

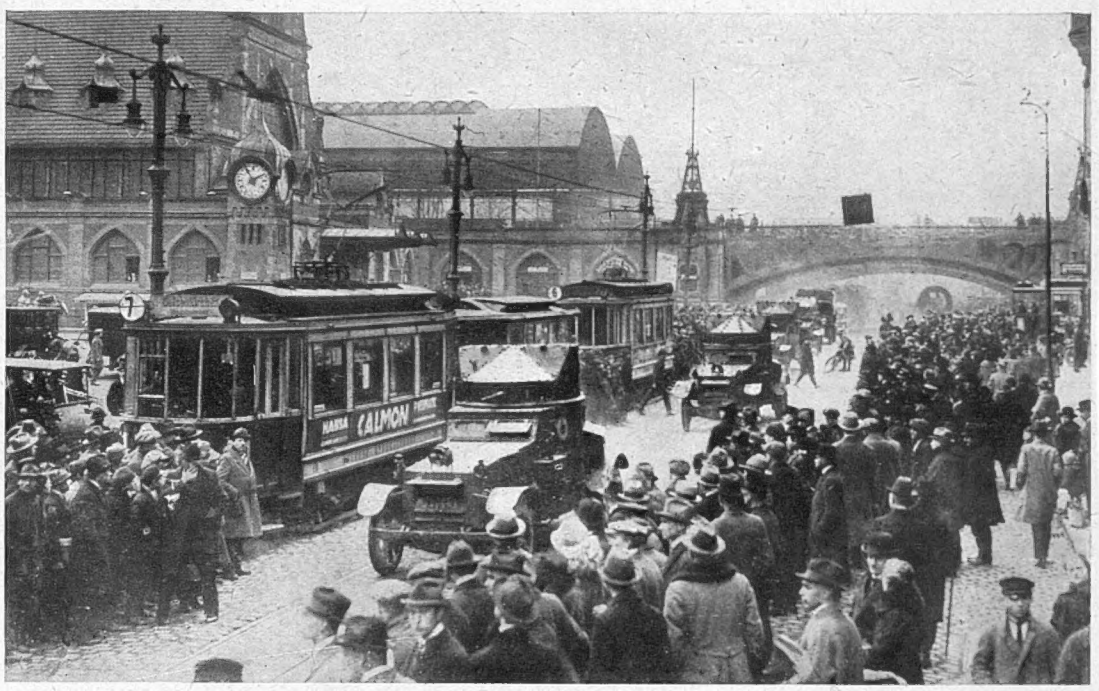
The best bet, perhaps, at this stage is for men like Eden, Cripps and Bevin to put their heads together over a brief marked "Leadership of Europe," and for them to emerge at war's end "with a well-matured and deliberately formed policy," and the intention of making it prevail. If I name Mr. Eden, that is because he is a Foreign Secretary respected by Europe, free and would-be so. Sir Stafford, for his part, champions a form of Socialism which, many think, will provide the bulk of Europe's answer to Communism. And Mr. Bevin has the expert knowledge with which to set in motion the social and economic sides of that very important organism, the International Labour Office.

Leadership by Britain would, of course, require this country remaining strong—and no nonsense about it this time. Whether or not conscription would be necessary, a powerful British contribution to the international police would be imperative, with the Royal Navy and the R.A.F. in the van. To try and wield responsibility without force leads not only to humiliation: it is as dangerous to the next fellow as to oneself.

As for the organism to which Britain might turn in order to fulfil her role, what would be so wrong with the League renamed The United Nations? Mr. Curtin, speaking for Australia, says the League ought to be kept intact "so that the experience of twenty years of international co-operation and administration should not be lost"; which seems to answer in advance the die-hard who will be heard from again, wanting to "kick out of Europe and stick to the Empire." An Irishman, Mr. Sean Lester, meanwhile keeps the League in being. He has a staff of ninety, "which includes guards." The Labour and Economic outfits are at Princeton and MacGill Universities respectively.

In conclusion, I am convinced that any leadership we might undertake would be helped by the present generation, where even their parents were still inclined to travel about with them a slightly stuffy superiority inherited from the Victorian era. (I shall always remember the British general who told the French seaman on the Calais mail-packet either to speak to him in English or not at all.) In sport and play the younger generation do not obtrusively travel England about with them. They are more tolerant and desirous of understanding others.

They do *not* share the sentiment that they are the greatest people who ever appeared on earth. Rather would they, I imagine, subscribe to a notice I once saw pinned up by a disgusted Briton on Boulogne docks. It was a Sunday evening, and the usual day trippers, sick or drunk or both, were enshipping back to England, after having had an orgy on the cheap franc. The notice read: "Don't do in another person's country what you mayn't do in your own."



THIS PICTURE HAS A DOUBLE INTEREST AT THE PRESENT MOMENT: It was taken during the year 1922, during the Occupation of Essen by the French, and shows French armoured cars passing the Station, watched by the sullen German populace, many of whom thought that they ought to win the Peace although they had lost the war! To-day Essen lies largely in ruins, as the result of the second of the "Over 1,000 Bombers" raids by the R.A.F.

THE RETURN FROM BOULOGNE : Special Service troops who took part in the operations unloading their unused ammunition on the beach after returning to Britain. Note the shorts worn by all the men

THE LATEST COMMANDO RAID

The Boulogne Area Reconnoitred by British Forces

In the early hours on June 4 last a small contingent of Special Service troops, or Commandos, as they are better known, carried out a reconnaissance raid on the enemy-occupied coast of France in the Boulogne-Le Touquet area. They were accompanied by a naval escort force commanded by Lieut.-Com. T. N. Cartwright,

LIEUT.-COM. T. N. CARTWRIGHT, Senior Officer of the naval escort

and the landing was covered by Hurricanes of Fighter Command. Targets in the vicinity were also bombed by Havocs and Bostons of Fighter Command. While the general mêlée was in progress, the naval escort took the opportunity of sinking an enemy patrol vessel and damaging another. When Major K. R. S. Trevor, who commanded the land forces, decided to withdraw, Spitfires came into action and escorted the vessels home, the pilots reporting that they could see large fires and black smoke on the French coast. Our troops suffered only slight casualties, and information of a most valuable nature was obtained

HOW THE WOUNDED CAME BACK : Naval and Army personnel being removed from the naval craft on arrival back from the French coast

WADING ASHORE ON THE ENGLISH COAST AFTER THE RECONNAISSANCE : How the troops returned from Boulogne. The Royal Navy provided the naval escort and the re-embarkation was covered by aircraft of the R.A.F. Fighter Command

SEEN THROUGH THE FOG OF WAR

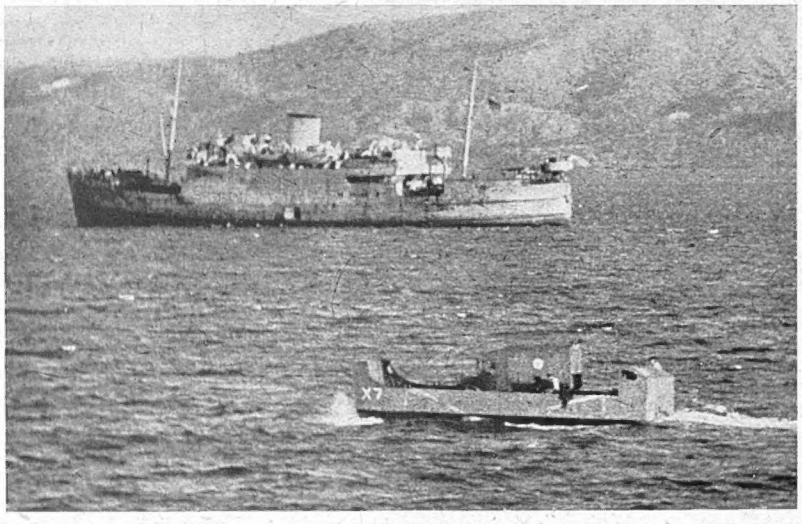
The Latest News-pictures Sent by Radio from Libya and by News-reel Operators from Madagascar

In the last war the majority of the pictures presented to the British reading public in illustration of the land and sea operations were either from direct photographic prints or from drawings by special artist War Correspondents at the actual fighting fronts. In this war, however, so vast are the different theatres, and so considerable are the distances involved, that frequently recourse has to be made to that newest scientific wonder—the radio. By the latter means, the public have been acquainted with the progress of the Russian campaign, and other far-off operations, such as those in Malaya and Burma. But, owing to the means employed, there have been inherent defects which may be overcome later as improvements in the methods of wireless transmission are made and new inventions incorporated. The News-reel companies, too, have been well to the fore in practically every action of note throughout the present war. But, for the general reader, to achieve "topicality," a certain amount of clarity of subject has disappeared. Of the seven pictures on this page, for instance, the top three have come from Libya by radio; the bottom four from Madagascar via the News-reel film strips. All are given here—with their imperfections—in the hope that these imperfections will be excused because of the interest and "topicality" of the subjects portrayed.

THE LIBYAN BATTLEFIELD: The new "General Grant" tanks at British Forward Tank Headquarters. These are the new U.S.-built medium vehicles which stood up to the Germans in the Knightsbridge fighting

BRITISH TROOPS IN LIBYA, standing by a German medium tank still burning after its destruction by gunfire. Our deadly six-pounder, anti-tank gun, produced entirely in Britain, came as a great surprise for the Germans

THE COMMANDER OF A BRITISH LIGHT TANK on the look-out for enemy vehicles in the desert: to the left is a German tank set on fire by our guns. The British tank above is *not* one of the new "General Grants"



IN DIEGO SUAREZ HARBOUR AT MADAGASCAR: One of the special landing-craft used in the operations is here seen carrying a motor ambulance to the shore for further service there

REAR-ADMIRAL E. N. SYFRET AND MAJOR-GENERAL STURGES—the two British commanders in the Madagascar operations—inspecting British troops in Diego Suarez after the surrender of the Vichy authorities

COLONIAL TROOPS IN THE SERVICE OF VICHY FRANCE in Madagascar marching in to report to the British after the French surrender. All these men were well armed, well equipped and well nourished!

NATIVES OF MADAGASCAR, nearing the Diego Suarez area shortly after the end of the fighting, carried individual white flags of surrender. Soon they were on excellent terms with the British troops

A Comparison of Events During the Three May Months of 1940, 1941 and 1942

1940

1—Fierce fighting in Norway.
2—Allied troops withdrawn from Andalsnes.
3—Troops evacuated from Namsos.
10—Germany attacked Holland and Belgium. Luxembourg invaded. Allied troops entered Belgium. Mr. Chamberlain resigned. Mr. Churchill became Prime Minister.
13—Queen of the Netherlands and the Dutch Government retired to England.
14—Dutch forces ceased fighting. Germans break through at Sedan.
19—General Weygand appointed C.-in-C. in succession to Gamelin.
24—Germans took Boulogne.
28—King of the Belgians capitulated and the Belgian forces ceased firing.
29—British and French fighting their way back to Dunkirk.
30—Evacuation from Dunkirk of B.E.F. began.

1941

1—Fighting on frontier of Egypt. British troops evacuated to Crete.
2—Iraq rebel Government started hostilities. Tobruk, held by British in Libya, resisting German and Italian attack.
3—British occupy Basra.
7—Haile Selassie returned to Addis Ababa.
8—Enemy raiders over England continued—74 had been shot down during the week. Hamburg and Bremen attacked by over 300 British planes.
10—Severe night raid upon London—House of Commons wrecked, Westminster Hall damaged—Westminster Abbey injured and Deanery destroyed—33 raiders shot down.
12—Rudolf Hess landed in Scotland.
15—In Syria the French Government allowed the German aircraft to use aerodromes.
19—Duke of Aosta, Governor of Abyssinia, surrendered at Amba Alagi.
20—German troops landed in Crete by parachute.
22—Maleme Aerodrome, near Canea on Crete, captured by Germans.
25—The British battleship, H.M.S. *Hood*, sunk in action near Greenland by the *Bismarck*.
27—The German battleship *Bismarck* sunk. Severe fighting continued in Crete.
28—Roosevelt announced "unlimited national emergency"—giving him vast powers.
29—British forces pushed back in Crete—Canea occupied by Germans.
30—Iraq rebellion collapsed—Rashid Ali fled to Iran—British forces closing in on Bagdad.

1942

1—British Burma force withdraw.
3—Russian attacks in Crimea. Japs enter Mandalay.
5—British forces land in North Madagascar.
6—Corregidor fortress falls to Japanese.
8—U.S. naval blow to Japanese protected convoy.
11—Malta repulses heavy air raids.
12—Heavy fighting breaks out in Eastern Crimea.
13—British forces nearing Assam. Russians launch big attack towards Kharkov.
17—Soviet withdrawal from Kerch.
18—*Prinz Eugen* attacked from air off Norway.
19—German push to eastward to outflank Timoshenko in Kharkov area.
24—Russians and Germans locked together south of Kharkov.
27—Rommel launches Libyan attack.
31—Chinese withdraw from Kinhwa, capital of Chekiang Province.

THE LOSSES WE HAVE SUFFERED

The Fortunes of War on All Fronts Compared, as Shown in the Published Casualty Lists of the Navy, Army and Air Force

A FEW weeks ago Sir Kingsley Wood's Budget speech reminded us of the financial cost of total war. Now Mr. Attlee has presented the grimmer side of the balance-sheet—the cost to the flower of the Empire's man-power. Up to September 2 last, the loss of life in all Services in all fields of war had been 78,729 killed or missing, and 46,363 wounded, besides 58,458 prisoners of war. Since last autumn, of course, there have been the casualties due to Japan's entry into the war, which Mr. Attlee's figures do not include, and of which (since Japan declines to co-operate with the usual international machinery) it is not possible to give an account. From our own reports, however, it is known that we must add at least 25,000 to Mr. Attlee's figures as representing Far Eastern casualties, and we may hope, on the basis of experience, that more than half of these will be prisoners of war.

The figures for the civilian population, which can be given much more accurately, since the Home Office releases the details monthly, show clearly that every inhabitant of the United Kingdom can consider himself a front-line soldier. By the end of April 1942, over 43,000 civilians had died by enemy action, and 54,000 had been seriously injured—a figure which is probably roughly on a level with the Army's losses, and notably greater than the combined losses of the Navy and Air Force. It is equal to about five years' pre-war road deaths at their highest level.

It was not until August 8, 1940, with Holland, France and Belgium overrun, that the Nazis commenced their ten-months' non-stop civilian bombing campaign. Once in control of the aerodromes on the other side of the Channel, however, the Nazis used unprecedented concentrations in the attempt to break down the home front, both by night and day. On August 16 and 17, 1940, for example, about 600 machines attacked south-east England—and 245 were lost. On the night of May 10, 1941, the last heavy London raid at the time of writing, 400 bombers attacked the capital, and most made several trips.

Such prodigal expenditure was bound to have results. In the daylight raids of the Battle of Britain phase, over 1,700 civilians were killed and 3,360 seriously injured. By the end of October 1940, the night-raid casualties were 12,581 killed and 16,965 injured.

This April the battle again reopened after nearly a year's respite. The *Baedeker* raids so far have claimed 938 deaths and nearly a thousand wounded. To the British civilian in this war has fallen the lot of the P.B.I. ("poor blooming infantry") in the last—that of standing fast under endless fire.

R.A.F. Losses.—Next to the civilian losses, those of the R.A.F. can be estimated most accurately, since Air Ministry communiqués announce the aircraft losses, though not of men. Working on an average figure for the crews, now becoming steadily larger, we can assume that the 4,681 machines lost up to May 3 have cost us a total of about 14,000 men as casualties. Owing to the circumstances of air war, the ratio of wounded and those taken prisoner is likely to be less than in the case of the Army. Probably at least 9,000 R.A.F. men and women have given their lives in the defence of Britain and the pursuit of our enemies.

The war began early for the R.A.F.—their first reconnaissance flight was made before the war was two hours old, and was completed without loss. The attack on the Nazi Fleet in Schillig Roads next day was not so fortunate: seven aircraft were lost. The first R.A.F. casualty list on September 17 contained the names of seventeen men who died in that initial venture.

Casualties in air warfare are particularly freakish; a huge aerial sweep over enemy territory may cost only one or two machines, sometimes none. Another operation, apparently far less ambitious, may see over 50 per cent. casualties. On May 14, 1940, the R.A.F. were ordered to destroy several bridges over the Meuse, by which the enemy were piercing the Allied lines. Sixty-seven Battle bombers took off, thirty-two returned. More recently, in the Augsburg raid, we lost seven out of twelve big bombers. Against this, more than one raid on north-west Germany has been completed without loss.

Always, however, the R.A.F. take a heavy toll as the price of their own losses. In the Battle of Britain, the Nazis lost machines at a ratio of about 8 to 1. The odds may not always be so favourable; obviously they cannot be as our own operations turn more and more to the offensive. But we may rely on the R.A.F. that the sacrifice will be fruitful.

A SUMMARY OF LOSSES

Civilians		Army	
Killed	43,179	Killed or missing	53,000
Wounded	54,000	Wounded	45,000
		Prisoners of war	62,000
Total	97,179	Total	160,000
Navy		**R.A.F.**	
Killed or missing	15,000	Killed	9,000
Wounded	10,000	Wounded	3,000
Prisoners of war	3,000	Prisoners of war	2,000
Total	28,000	Total	14,000

All casualties have been calculated to the end of April 1942

The Army.—Deducting our estimate of R.A.F. losses from Mr. Attlee's total leaves us with the conclusion that our Army and Navy have lost jointly about 7,500 killed or missing and over 50,000 wounded. From the figures released from time to time, from Norway, Crete, Libya and Malaya, one can roughly apportion the losses on land and sea. It seems reasonable to suppose that the Army has suffered greater numerical losses, even though they have, with the exception of Malaya, been in a series of comparatively small campaigns. Norway cost us only 250 men killed, out of the 24,000 who were landed. In Crete, our total losses were 15,000, of whom possibly 10,000 may well still be living, either as prisoners or guerillas.

The brief Continental campaign, culminating in the crowning horror or glory of Dunkirk—call it what you will—added another 13,000 deaths and about 40,000 prisoners of war to the growing total. The second Libyan campaign has taken a far heavier toll than the first, and as to Malaya, Java and Burma, few can say except the Japanese, whose lips are sealed in malevolent brutality. Weighing hope with knowledge, one must assume that nearly 40,000 of the Empire's armies have so far died in the second World War; about 45,000 have been wounded, and that of about a further 12,000 it can only be said that they are missing, and that another 62,000 are prisoners of war.

It may well be that history will show some of the campaigns in which these losses occurred to have been ill-considered and unproductive—it would be unique among wars if it did not. Yet, after two and a half years our Army has lost rather fewer dead than Gallipoli cost us in the eight and a half months for which that ill-starred "side-show" dragged on. Our wounded are a mere fraction: say 45,000 as against the 200,000 we had incurred by the time we said farewell to Suvla Bay. Against the background of Flanders our losses shrink still more, for by June 1915 the Allies had lost at least 300,000 men. No blunder in the present war has so far approached the Paschendaele push, which secured five miles of untenable ground for five months at a cost of 400,000 casualties. Even in the spring of 1918, at the height of the Somme retreat (when it seemed that our 5th Army would have to be left to its fate and the remainder of our force evacuated), ten days' fighting cost us over 170,000 casualties. To the Parliament of that day, attuned by years of almost unrelieved tragedy, Mr. Attlee's figures would have been welcome by comparison. Viewed as the price of maintaining an Empire, unprepared for war, almost intact against the strongest group of hostile Powers it is possible to imagine, the cost seems mercifully low. We have certainly paid the price of defence, but Germany has had to pay the cost of aggression. According to Mr. Churchill, she has already lost more men than in the whole of the last war. If this is so, over 2,000,000 Germans have already died for Hitler. History may well hold that we made the lesser blunder.

The Navy.—Rarely in this war has the Navy been able to compel the enemy to give battle on ground of our own choosing. Rather is it a tale of gallant, single-ship actions, of the long-drawn-out ordeal of convoying, and of making one warship do the work of three, with the bare minimum of time in port. Kipling tells us that "Blood is the price of Admiralty," and always the Navy pays in full. Our losses so far announced include three aircraft-carriers, five battleships, fifteen cruisers, and over sixty destroyers. It is a sombre account, though the historian will find its pages illuminated by such names as *Exeter* and *Rawalpindi*.

The land campaigns took toll of the Navy's light forces, though the help as always was ungrudging. Destroyers bore the brunt of the Norway campaign, and were subjected to days of dive-bombing in narrow waters. At Dunkirk the losses were lighter, but Crete again found the Navy working under the worst tactical conditions. Since then we have had the Java and Coral Sea actions, and the continued steady drain of convoy and escort, attack and defence. Four cruisers and a larger number of destroyers were lost. Among the items on the other side of the account are the battles of the River Plate, Taranto and Matapan. One may justly grieve the loss of the *Hood*, yet the sinking of the *Bismarck* was a direr blow for the enemy. The continued flow of munitions across the broad Atlantic is undeniable evidence of as fine a strategic victory as any navy has ever won.

Our submarines work to a stricter code than those of the enemy. Thirty-five are lost or missing, but from the records of their comrades we know they will have gone down fighting.

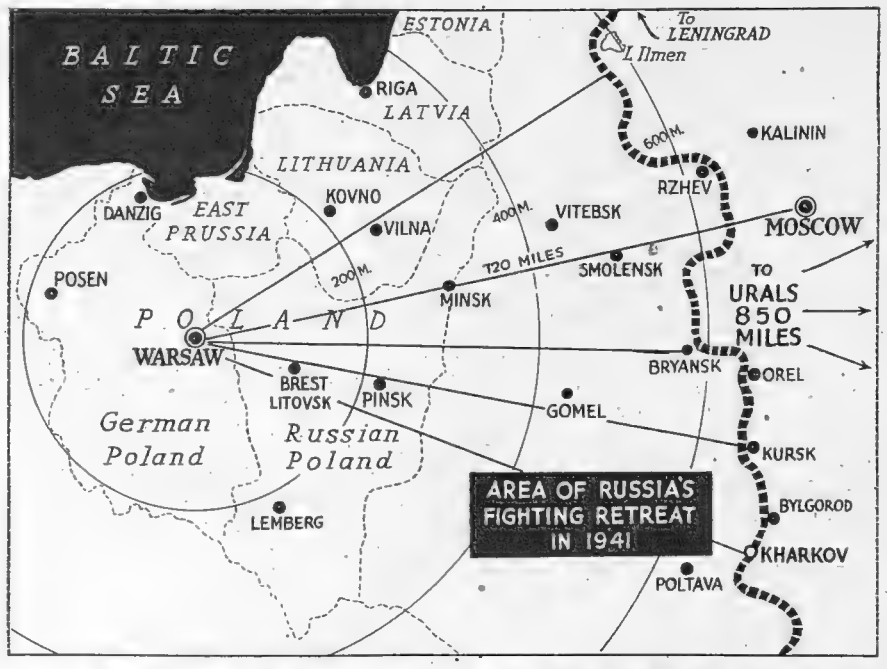
Naval casualties tend to occur in large numbers at fairly wide intervals. A battleship or aircraft-carrier will have a crew of 1,400, a cruiser 600, and a destroyer 150-200 men. When one is lost in the heat of battle, the chances of outside help are slight, and casualties tend to be large. The routine duties of convoying and minesweeping take a lesser, but ceaseless, toll. There have been probably 28,000 naval casualties so far. Many of them will have returned to duty as fit as ever, but one must assume that between 8,000 and 10,000 of them will never take part again. Probably the naval "killed or missing" total now equals at least 15,000 men, but we may hope that the Japanese prison camps may be compelled to yield up many of them in the end.

P. H.

The Campaign in Russia

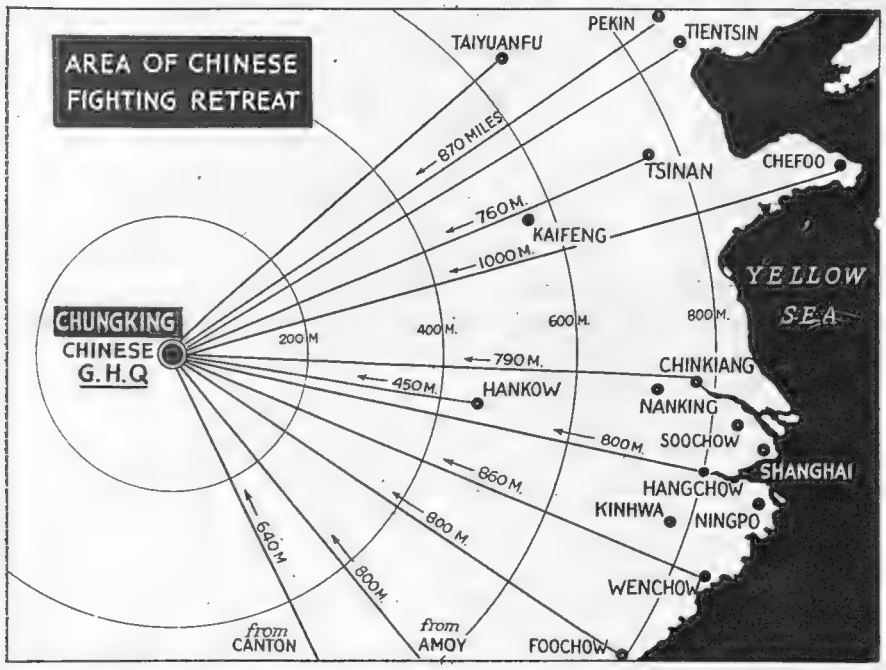
THE LESSON OF KERCH

Room in which to Manœuvre is an Essential to the Defence in "Blitzkrieg" Tactics



When war came, the Russians were able to retreat nearly 600 miles from their new Polish frontier to the Moscow Line, where the Germans were finally halted. There was still another 850 miles in which to manœuvre, up to the Urals if necessary!

The dangers of the Kerch position, which the Germans exploited to the utmost. There was no room in which to expand, and the defenders were crushed into a narrowing space. Here the Germans massed hundreds of aircraft



In China, our allies have been able to withstand the Jap onslaught only because of the devastating area in which they had been able to manœuvre and retreat. As the invader has not been able to destroy the Chinese armies, the whole weight of his attack has been worn down by the colossal distances

WHY have the Russians been beaten again on the Kerch Peninsula of the Crimea? The answer contains the secret of successful defence in this war, namely, that Kerch was at once too narrow and too short for the defending forces to manœuvre and so resist the tremendous blow of the German assault. There is a very important lesson here, especially for our own strategists. Consider these facts:

"Blitzkrieg" has been successful in this war practically in every case where the "blitzers" have been able to bring their overwhelming force to bear on a given point. The German method has been fundamentally the same always, to choose their spot and then heap everything on to it. The same applies to the Japanese, and to ourselves in Africa. Now consider the successful defences against "blitzkrieg," namely, China and Russia as a whole. A dialogue in a recent Chinese book, between guerilla teacher and recruits, went something like this: "What must we do when the enemy attack?" "Retreat." "What must we do when the enemy retreat?" "Attack." "When only must we attack?" "By surprise with superior numbers." "What must we never do?" "Allow the enemy to catch us in a narrow place."

That dialogue illuminates the whole military history of China and Russia. Consider how Russia has never lost a war of defence, and the only battles of defence lost by her have been "concentrated ones." Now let us glance at Kerch again. The facts, as paraded by the temporarily exultant Germans, are now coming out. Apparently the *Wehrmacht* assembled all it had outside that first Russian defence line half-way up the peninsula. At a given signal it let loose. This is what a correspondent said after seeing a Nazi propaganda film of the attack: "At times hundreds of German aeroplanes, operating in line formation, were raining bombs each of half a ton to one ton in weight, and seeming to drag an iron curtain slowly across the whole battlefield, while on the ground mechanised forces of all kinds followed up the aeroplanes."

The lesson has doubtless been studied in Moscow and Berlin (not to mention Tokyo, especially as the Japanese used similar methods to reduce Singapore), and we must not forget in this country that invaders would try to exploit the compact nature of our own territory in the same way. But we might find it still more profitable to study the battle of Kerch with our future offensive operations on the Continent in mind. Thus we might discover that any European attack would be best concentrated on a narrow compact region, such as (for the sake of illustration alone) parts of Italy or even Denmark. There is a way now, however, of creating the same conditions *artificially* almost anywhere.

This is by the use of air-borne troops to establish islands of fire at the enemy's sides and rear, thus temporarily holding him in one narrow place while the overwhelming assault is delivered frontally. Supposing, for example, a bridgehead could be established somewhere and consolidated with the landing of several armoured divisions and many wings of heavy bombers and fighters. The Germans would rush up strong forces to meet us. Then we would land from the air division after division of troops with automatic weapons and light guns at, say, half-a-dozen points. They would at once temporarily contain the German forces that had rushed forward and prevent further German reinforcements from getting through. Our armoured divisions and aircraft would then "Kerch" the bottled-up Germans and clear the whole area, relieving the gallant islands of air-borne troops. The process would then be repeated on another strip.

Undoubtedly air-borne troops revolutionise the technique of the offensive. Used properly they can artificially create a narrow battlefield of the type most responsive to blitz tactics. The really heavy armoured assault can scarcely fail, provided that the defence is held in one place and given no room to manœuvre or retreat on communications.

D. C.

THE MAN WHO COMMANDS THE POLISH ARMIES IN RUSSIA: In July, 1941, a Russo-Polish Agreement was signed by General Sikorski and M. Maisky. Later, in August, the formation of a Polish Army in Russia was decided upon; and General Anders, a leading Polish soldier, was given command of it. Recently the Polish general paid a visit to Gibraltar, where this picture was taken

THE BALTIC FLEET COMES INTO THE WAR PICTURE ONCE AGAIN: The ice-bound Russian warships are now free and are already beginning to help the Leningrad defenders by harrying the Germans in the Gulf of Finland—*Drawing by Wm. McDowell*

When winter threatened in real earnest around Leningrad, a certain number of warships of the Russian Baltic Fleet left that region by means of the canal leading from Leningrad to the White Sea. But the larger vessels were unable to use the canal, and consequently remained immobilised when the freeze-up came. Before the ice finally held the ships, it is possible that these were separated, more than is indicated in the drawing below, to reduce the chance of loss by air bombing; and they were probably moved to strategic positions to serve as anti-aircraft batteries.

But now that the Gulf of Finland is reported to be free of ice, the Russian warships are no longer immobilised, but can proceed with their former tasks of harrying the Nazi land forces and troopships and transports. The fact that none of these ice-bound vessels were reported during the winter to have been sunk by the Germans would certainly confirm the impression conveyed by persistent report that the Russians enjoy an undoubted air superiority in the Leningrad sector. Undoubtedly the Germans would have plastered the Fleet and the frozen waters to smithereens if it had been possible! But the Soviets probably gave Leningrad a big share of their air strength, both for strategical and sentimental reasons.

HOW THE RUSSIAN FLEET AT LENINGRAD PASSED THE WINTER—*Drawing by Wm. McDowell*

This picture first appeared in *The Sphere* in November of last year, when ice was beginning to form in the Gulf of Finland. Whilst the ice was forming, ice-breakers were able to keep the port of Leningrad open for some weeks; but for about four months—on average, from mid-January till the beginning of May—it is inaccessible. During this period, of course, all the Russian warships remaining in the Gulf were out of action, save as anti-aircraft batteries

NAVAL CO-OPERATION IN THE BLACK SEA: A radio picture showing a Russian submarine shelling the enemy in the Crimea. The observer above the conning-tower is watching the bombardment

In the above drawing by Mr. McDowell two of the now-freed Russian warships are seen in action in the loose ice off Leningrad: they are shelling the German lines, which at points surround the northern capital fairly closely. (Note that in certain of the larger Russian battleships the upper half of the forward funnel is slanted rearwards, to carry the gases clear of the gunfire control station and bridges.)

To mark the end of the thaw, on May 1 Moscow broadcast some very impressive figures concerning the achievement of the Baltic Fleet. Up till that date Russian warships in those waters had sunk 168 enemy ships, including a heavy warship, a cruiser, sixteen destroyers, eighteen U-boats, eighteen torpedo boats and 114 transports. For the same period, Fleet Air Arm pilots and naval anti-aircraft gunners brought down 721 enemy aircraft.

THE CAMPAIGN IN RUSSIA *(continued)*—Supplies via Persia, and the New Rocket-Shell

HEAVY BOMBERS ARE BEING TRANSPORTED TO RUSSIA BY WAY OF THE RAIL AND ROAD HIGHWAYS THROUGH PERSIA TO THE CASPIAN. In this picture the lorry convoy is descending the road from the Elburz Mountains to Enzeli (Pahlevi), the Persian port on the Caspian, for transhipment into Russia—*Drawing by E. G. Lambert*

The difficulties of supplying Russia with her needs have been eased by the Persian route. The "Lease-Lend" road passes over the lofty Elburz Mountains to the Caspian, and then on to Baku and Russia: Red Army drivers operate the convoy lorries along a road which is often as tough as the Burma Road, and where every driver is his own mechanic. From America, crated aircraft are now arriving in good numbers for assembly on Russian airfields: regardless even of mountain gorges, everything keeps rolling; as the loaded lorries descend the gradients down to the great inland Caspian Sea, others return empty. These belong to the Red Army, and also to the United Kingdom Commercial Corporation, the transit agency for Britain's Aid to Russia. The lorries shuttle incessantly from one end of Persia to the other. Recently, the business of supplying Russia's urgent needs was hastened by the opening of another new railway line—between Ahwaz and Khorramshah—whereby war supplies from the Persian Gulf are accelerated on their way to Russia. Khorramshah, on the Shatt-el-Arab, is now only second to Basra as a port. At Bandar Shapur, the port on the Persian Gulf, American engineers have already enlarged the dock facilities, and British railway shops have greatly increased the rolling-stock of the trans-Persian railway. Some time ago 2,000 tons of war supplies daily were being handled

A picture from Cairo showing L.M.S. rolling-stock shipped to Persia from England and named "Churchill's Reply." The trains are about to move off from the yards at Ahwaz

A convoy of lorries loaded with supplies proceeding on an eight-day journey northward through Persia to Russia, over the Elburz Mountains

THE WOMEN OF RUSSIA WHO FIGHT SIDE BY SIDE WITH THE MEN: Soviet women guerillas of the Serpukhov district of the Moscow region listening to the account of the experiences of a fellow-guerilla, T. Shebayeva (left), after her return from an operation against the enemy

Some idea of the terrible experiences which these women guerilla fighters are undergoing can be gleaned by the speech made at a meeting in Moscow last month by Prokhorova, a young girl guerilla fighter who was awarded the Order of the Red Banner. She is a peasant girl from the Moscow region who lived for three months under Nazi occupation. Describing the horrors of Nazi rule, Prokhorova told how the Germans had hanged her sixteen-year-old friend, leaving her body on the gallows for several days before burning it. After this Prokhorova left the village and joined the guerillas. She became a scout, and in order to collect information she deliberately met Germans and calmly answered their questions. Two of her comrades were schoolboys, aged fifteen and sixteen, whose mothers also joined the guerilla unit. These two boys were later captured and put to death. Prokhorova also spoke of the trained nurses who had joined guerilla detachments, taking part in their operations and saving the lives of many members of the units

SPRINGTIME IN RUSSIA! German supply wagons passing through the main street of a small Russian town in the southern sector of the Eastern Front, where the snow of winter has given place to the floods of spring

THE RAINS CAME—AND THE THAW! Railway lines littered with barrels, fences, cases and other debris after the floods caused by the destruction of dikes behind the German lines in Russia

THE REMARKABLE NEW "ROCKET-BOMBS" USED BY THE RUSSIANS IN THEIR "TANK-BUSTERS" AGAINST GERMAN MECHANISED FORMATIONS. The rocket charge is fitted to an ordinary armour-piercing shell controlled by gyroscopic action: the shell is then fired directly at the tank—if it registers a direct hit, the vehicle is completely destroyed. Aim is taken as if the aircraft were a dive-bomber, but at a much less acute angle—*Drawing by L. Ashwell Wood*

A ROCKET-SHELL from RUSSIA

The Amazing Possibilities of the Latest Anti-Tank Weapon

NEWS leaking out of Russia recently about the rocket-shell that is apparently being used by Soviet aircraft to attack tanks, confirms the opinion expressed by a British air expert in Moscow that here we may have "the most successful of all the inventions this war has produced so far." Indeed, if the device is as good as the experts claim, then it may prove revolutionary in its effects.

It is impossible to give technical details of the shell, but evidently a rocket-charge is affixed to an ordinary large, armour-piercing missile, and the whole contraption is fastened to a special bracket underneath the aircraft. The pilot takes aim in very much the same way as a dive-bomber—save that he descends in a flatter dive, and can take a much more precise, nearly horizontal aim—after which he operates a mechanism, and the rocket-charge at the back of the shell is fired.

The effect of this is to propel the shell out of its bracket and along and down towards the tank or other objective at great speed. The explosive burns furiously behind, providing the motive-power. When the shell hits the tank, pierces the armour easily, and explodes with tremendous force inside, it is equivalent to the devastation wrought by a direct hit at close quarters from a high-calibre field gun.

That is the revolutionary aspect of the rocket-shell; or would be if, indeed, the rocket-shell, as described, is a thoroughly perfected invention. Hitherto the tank has had everything its own way. Artillery is cumbersome and can be dodged so easily by the tank, then smashed from the side, or left far behind. Dive-bombers have made up some leeway, but their bark has often been worse than their bite. The bomb is small, and the aimer can't rely on its dropping just where wanted; then the speed of the missile at a low height, even after a long dive, is not fast enough.

The reason why armament experts have been concentrating on cannon for aircraft is thus explained. But the cannon people have been baulked by the considerations of weight and recoil. To carry an 8-in. field gun a gigantic aircraft would be needed; then the firing of the gun would either shake the plane to pieces, or send it twisting in the most unlovely series of evolutions ever conceived to an ear-splitting crash on the ground. Similarly, it is impossible at present to construct a really mobile ground gun, that is to say, a heavy weapon that can travel and manœuvre with the speed of a tank, firing meanwhile on the run.

But an effective rocket-shell disposes, or would dispose, of all these objections in a flash. No gun is needed, and only the weight of the shell need be considered—say, 200 lb. in the case of the mighty missile used by an 8-in. howitzer. This is because the shell propels itself, and the mounting on the aircraft would not necessarily be any heavier than that used for a small bomb. Is it not obvious that, if the Russian invention is really a success, then a new page has been turned in the history of missile warfare? Armed with such shells, aircraft could seek out and destroy tanks with incredible ease. The aircraft would itself be the gun.

As said, no details can as yet be given of the technical apparatus of the Russian device. But we can guess that an application of the gyroscope principle has probably made the invention practicable. The trouble with rockets in the past was that they could not be controlled, and would as often as not twist and turn in the air, before suddenly reversing and coming back at the firer like a boomerang. The gyroscope has been used in many military devices to keep an instrument metaphorically on an even keel. The spinning gyro automatically corrects tendencies for the instrument to diverge from its direction.

That would not, of course, be all. A tricky piece of mechanism would be needed to fire the missile at the desired moment, and a special explosive required to ensure that the shell did not proceed by fits and starts, *and* that it didn't explode itself by overheating on the way. It does seem, however, that these are minor matters, not beyond the ingenuity of mechanics to solve. The essence of the invention is the *idea*, simple, like all great new ideas; so simple that one wonders, as usual, why nobody thought of it before, but epoch-making if successfully translated into reality. And it may be noted that many news items have recently emerged from Russia to confirm a considerable success. For instance, Alexander Werth says, in his *Moscow '41*: "The pince-nez Colonel asked if we could be shown one of the latest inventions which the Russian Air Force has been using with remarkable success. . . . It was actually a kind of shell which the Russian airmen were successfully using for attacking not only enemy aircraft, but also tanks, and the mechanism of the whole thing was remarkably ingenious. The 'tank-buster's' aim was, of course, much more accurate than that of a bomb."

Mention of the weapon's use against other aircraft is particularly interesting. Imagine a Spitfire fitted with a line of such shells under its wings, capable of being released independently or all at once against a single target. Then one thinks with growing enthusiasm of an adaptation of the idea to land warfare. It has been demonstrated in this war that old-style artillery has lost much of its effectiveness as a result of increased mobility of other arms. Would it not be possible for a rocket-shell to be operated by an ordinary infantryman, using a light tripod for its base? Whole platoons could go forward, armed, each man with the equivalent of a full-size field gun.

D C.

The FULLY ARMOURED PLANE

Is This the Next Big Development in the Aircraft of the Near Future?

By PATRICK HAMILTON

WHEN some enterprising American christened the Boeing B17 the "Flying Fortress," he symbolised a hope rather than an actual achievement. It is the ambition of all the combatants in this war to evolve a machine which really will be a flying fort, heavily armoured as well as heavily armed, and invulnerable to anything but direct hits from the largest A.-A. shells.

So far, no country has released the existence of such a machine, and though the Boeing is a first-class aeroplane, it does not actually approach the flying fort ideal in speed, bomb-load, armour and fire-power as closely as our own latest four-engined machines. Up to the start of this war, aircraft designers held that speed was the best protection both for fighters and bombers. But the extraordinary advances in anti-aircraft gunnery soon showed that increases in speed inside the physically possible limits do not make a great deal of difference to the number of hits. In low- and medium-level bombing, for instance, the damage is done not by the shells going up, but by the shrapnel coming down! One must remember that if a plane flying at 300 m.p.h. hits a substantial shell-splinter, its own speed merely adds to the damage done. The modern box-barrage technique is based on this fact, and is so effective that steel helmets are now commonly worn by the crews of fast bombers on medium-level work. The shell-firing cannon finally extinguished the safety-in-speed theory. No bomber can be faster than a fighter, and no fighter is likely to be superlatively faster than enemy fighters. Some hits are therefore bound to be suffered, and while with the ordinary machine-gun a plane may be riddled with holes and still return safely, the 20-mm. and 37-mm. shell guns are another proposition altogether.

Consequently, instead of using the improved engines solely to screw another 5 or 10 m.p.h. out of the planes, designers did an about-turn and commenced to apply some of the extra power to carrying extra weight in the form of armour protection for pilot, petrol tank and engine. By the end of 1940, some armour was used on all British "front line" machines. With the very much more powerful engines now available, it is certain that the process has been carried much further. Towards the end of the Battle of Britain phase, some armour had become standard for all machines, from Spitfire to Wellington. It consisted of high-grade steel plates. In the fighters, not much attention is paid to protection in front, since this is the least vulnerable spot. The engine was relied on to protect the pilot to a large extent; at the rear of this was an armour steel plate immediately below the windscreen, which itself was a "sandwich" of safety-glass. Against attack from the rear, which is most dangerous to the single-seater machine, much thicker armour was used, protecting the whole of the back and seat, while the petrol tank was also armoured. The controls, engine and wing-surfaces, it has been found, will take enormous punishment and still function, so they were usually left unarmoured. The men and the petrol tanks are the vital spots. It was also soon found necessary to armour the bombers, and the work was done very thoroughly in the Wellington, for example.

The earlier Wellingtons were virtually unarmoured and suffered very heavy casualties in the earliest raids on German North Sea objectives. Protection was added by degrees, until the Wellington became one of the best-armoured bombers. Not only was the lower half of the tail turret armoured, but a large steel bulkhead at the rear of the cabin cut it off from the rest of the fuselage and prevented any fighter which might get on the tail of the bomber enfilading the whole length of the Wellington with its fire. Local armour was also introduced to protect the pilot, wireless operator and other members of the crew. The petrol tanks in the wings were protected against rearward fire by first one, and later, two layers of ¼-in. armour over their whole length.

No single-engined machine was armoured more heavily than the Fairey Battle, intended for trench-strafing and mild dive-bombing. Virtually the whole of the fuselage belly in this machine was heavily armoured as a protection against fire from the ground.

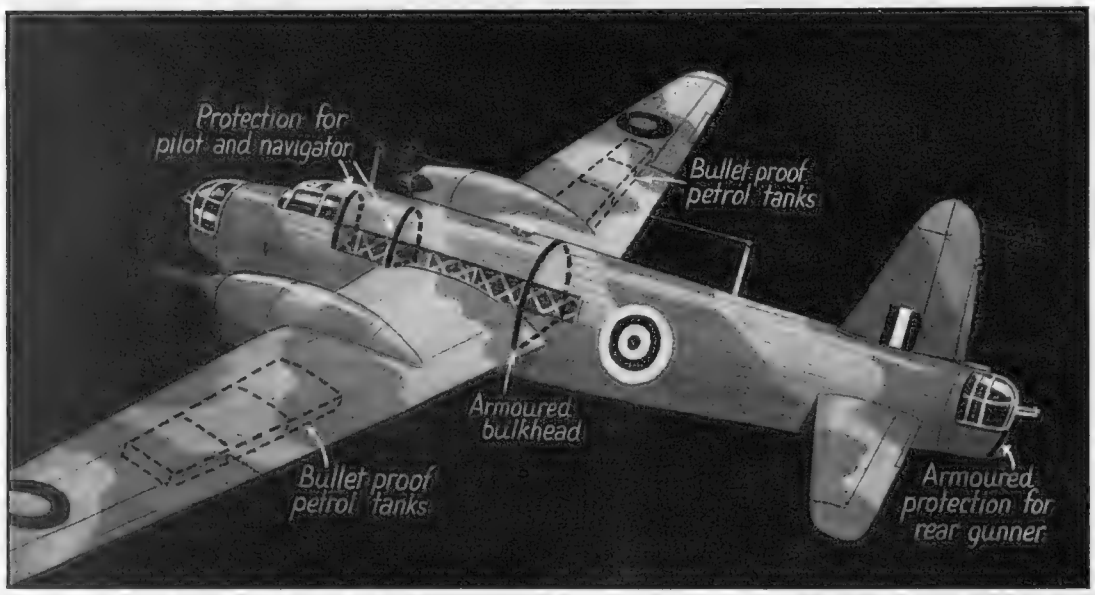
All these arrangements were improvisations, however, for it must be remembered that all the machines with which we entered the war were at least five years old in design. Even so, they have brought many battered planes home.

THE ARMOURED PROTECTION OF A SPITFIRE FIGHTER: Steel plates at the front and back of the pilot protect him from fore or aft attack, and his windshield is of bullet-proof glass. The sides of the fuselage are not armoured, as attack from this quarter is not usual

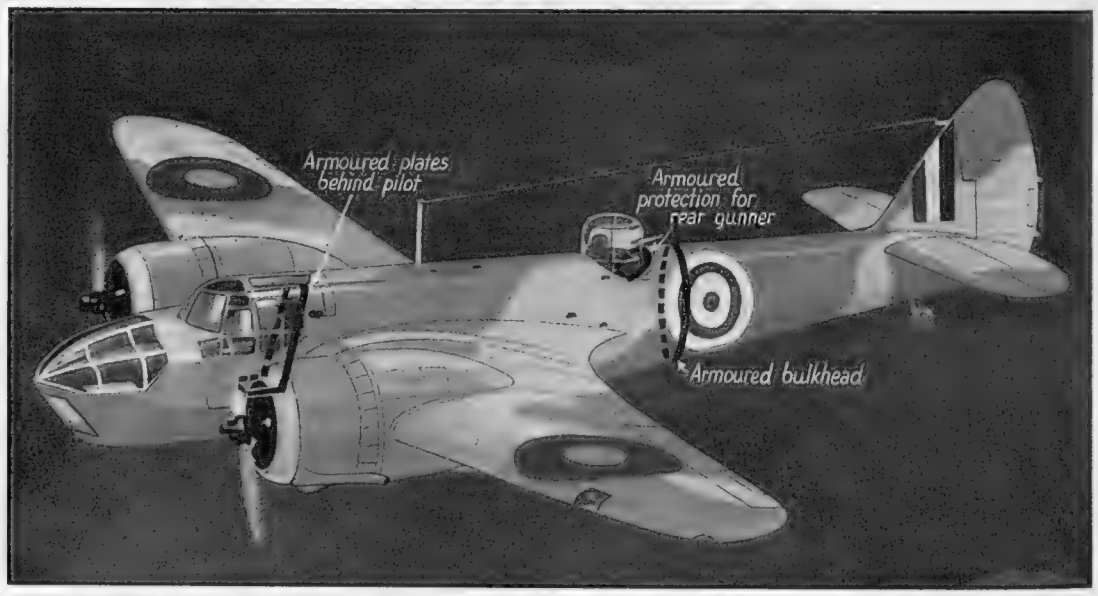
The opportunity for fuller use of armour began only when improvements in engine design opened the road. The Napier Sabre engine as fitted to the Hawker Typhoon fighter develops over 2,400 h.p., and yet takes up little more room and is little heavier than the 1,000-h.p. engines of 1936! The mere installation of a 2,000-h.p. engine in a plane which formerly had only 1,000 h.p. does not, of course, double the speed. There is very little room for improvement in this respect in our present fighters, which were dived at nearly 500 m.p.h. several years ago. Present fighter speeds, in fact, probably represent the feasible limit of endurance for both man and machine. The virtue of the new engines is that they permit present speeds to be preserved with far heavier loads at greater heights.

But it will be in the bomber that we shall see the biggest change when the fully-armoured machines appear. The Halifax at present has four 1,175-h.p. engines. If these are replaced with, say, four 1,600-h.p. or two 2,500-h.p. motors, it would not make a great deal of difference to the speed (which is most influenced by wind resistance and fuselage shape), but it would make a great deal of difference to the load-carrying capacity.

The fully-armoured machine of the future will show quite a number even of external differences. If we can make the bomber armour-proof against any shell that can be fired from a fighter, there is obviously no need to have a rear gun turret or rear gunner, and the weight thus saved will partly offset that of the added armour. The dorsal turret will probably be abandoned as well, leaving the only guns in the nose of the bomber. Reducing the crew from seven to five and abandoning the rear guns means that the crews may be concentrated in a neat armoured "egg" amidships. The advent of the 2,500-h.p. and larger engines may mean that we shall revert to the two-engined bomber, for it will be much easier thoroughly to protect two large engines and their fuel tanks than four smaller motors. The controls, of course, can run through armoured ducts to prevent them being shot away. Such a machine, flying low over the house-tops, could career across enemy territory with impunity. Too low for the heavy A.-A. guns, and armour-proof against the smaller guns or fighter planes, it would make such raids as that on Augsburg an everyday occurrence, with less risk to our planes than they now have to accept in night-bombing.



THE ARMOUR OF THE WELLINGTON IS VERY THOROUGH: The tanks are now bullet-proof, so that the armour-plates which were placed behind them are now no longer necessary. Pilot and navigator are both protected, and an armoured bulkhead protects the other members of the crew. Even the rear gunner has his own armour in the tail turret



THE BRISTOL BLENHEIM, in which protection for pilot and rear gunner from attack from behind is particularly substantial—*Three special* Sphere *drawings by L. Ashwell Wood*

The LIBYAN BATTLE

Incidents from the Desert During Rommel's Attempt to Capture Tobruk

—With Special Sphere *Sketches*

A DESERT FANTASY: A U.S.-built Kittihawk fighter belonging to the famous "Sharknose" Squadron of the R.A.F. during a Libyan sandstorm

HAULING A BRITISH GUN INTO ACTION IN THE DESERT: One of the chief features of the fighting has been the power and effectiveness of the Eighth Army's mobile artillery. A British photographer, who was captured by the enemy but later escaped, said that the Germans in their first advances were met by a heavy hail of British shell-fire when going down an escarpment. Later, the fire became extremely accurate and all the vehicles which the Germans had seized were rushed forward. Then the shooting of our gunners became *dead* accurate—and the prisoners were abandoned by their captors, to look after themselves!

GUIDING THE BRITISH BOMBERS TO THEIR TARGET—The V-shaped flares built up of blazing petrol-tins: Shortly before the offensive began by Rommel, our aircraft gave a severe drubbing to the enemy's principal airfields back of the German line. One of these raids was helped by volunteers who went out alone in a lorry far into the Axis lines and laid a line of petrol tins in the shape of an arrow-head. They were then set alight, forming a flaming signpost for our pilots to follow

LOW-FLYING ENEMY AIRCRAFT mean bomb attacks: hence the necessity for notices like this along the desert roads. There are many such to remind troops constantly of their danger

HOW THE TANKS ARE HIDDEN: In shallow trench shelters dug specially for the purpose. These great fighting machines are, however, always ready

THE GERMAN OBSERVERS USE LADDERS FOR RECONNAISSANCE—difficult targets to hit! This novel form of observers' post has been used in the No Man's Land opposite Gazala. The enemy's scouts appeared from time to time furnished with ladders, which they set up on this flat plain. It was reminiscent of Heath Robinson, but in fact it worked well—the destruction of a ladder a thousand yards away is no easy task!

THE TANKS HAVE BEEN FIGHTING IN A GREAT DUST BOWL, and when fifteen yards away from each other are often invisible, their positions only being known from the vivid flashes of flame as the guns are fired. Continuous communication between the tanks engaged is only possible by radio under such conditions—*Drawing by Roland Davies*

News of a great tank battle reads spectacularly. "To see it is almost incredible for its lack of visible drama," writes one eye-witness. The dust hangs over the fighting tanks in thick banks, and only puffs of bursting shells and occasional flame from blazing tanks pierce the fog. One man rode into battle on top of his car with the first line, hoping to film exactly what happened: but though he was nearer to it than a camera has ever got before, the pictures he secured at such great risk showed little! Inside that great dust bowl only continuous radio communication between tanks keeps the crews, squadrons, battalions and brigades together. Tanks which are only fifteen yards away from each other are often invisible!

ONE OF THE TWO-MEN ITALIAN TANKS which Rommel pressed into service during his last offensive: Earlier in the year General Rommel was forced by circumstance to make use of these small, lightly-armed and lightly-armoured Italian vehicles around El Agheila. Some of them were abandoned by the Italians themselves—their lightness being a great drawback in desert fighting, especially when they came up against our own much heavier fighting machines. But, at one period, the Italians were very proud of these two-men tanks; and they made much capital out of them. They are now, to all intents and purposes, quite useless!

On right—**AN EXTRAORDINARY FEATURE OF THE TANK BATTLES: The noon-day halt by both sides for refuelling and rearming**
Drawing by E. Byatt

One of the most remarkable aspects of the clash between the German and British tank formations has been the inevitable halt for refuelling in the desert. After heavy slogging matches each side would halt in "hull-down" positions just out of range, and British and Germans would leap out to clean their gun-sights. At Knightsbridge, in particular, the fighting was of the fiercest: stripped to the waist in the heat, their bodies grimed with dust, our men pounded away at the enemy in their successful effort to force him back from the all-important base at Tobruk. Refuelling and rearming were inevitable at stated intervals (incidentally, it was during some of these periods that our bombers were able to deliver attacks on supply columns engaged on this task). As our tank men hung out of their turrets, cleaning their sights and adjusting their guns, they could see the enemy battalion commanders whipping up and down the line in fast medium tanks, giving last-minute instructions. Then the tanks would again begin to grind forward in battle formation to take up the struggle . . .

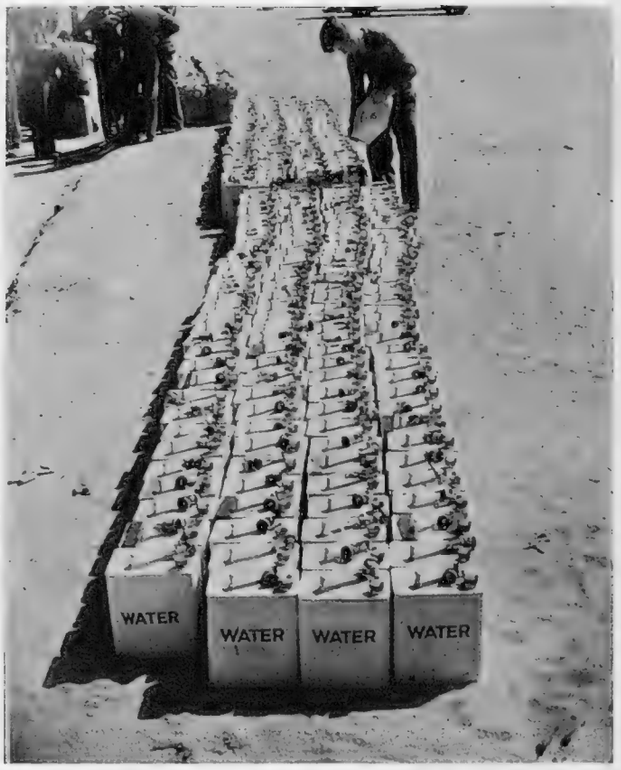
TANK TACTICS in the GREAT DESERT BATTLES

HOW THE GERMAN TANKS ARE TAKEN INTO BATTLE ON SPECIALLY-BUILT TANK TRAILERS

Despite its great fighting capacity over suitable terrain, the tank is only as strong as its tracks. And these cannot stand up to journeys of some hundreds of miles over uneven and rocky ground. Consequently, it is usual for both sides to bring their tanks to the scene of battle on specially constructed "tank trailers" such as the above. This enemy specimen was captured before the present offensive began in Libya, presumably owing to a breakdown on the part of the big lorry which carried it. Enemy equipment has frequently been captured, not only during big campaigns such as the present, but also as a result of our ever-active patrols and raiding parties. Some of the captured material is destroyed to prevent it falling back into the enemy's hands; but much of it is retrieved by our salvage units and used in a variety of ways

BEHIND THE FIGHTING FRONT IN LIBYA

HOW COMMUNICATIONS WERE SPEEDED UP BEFORE THE PRESENT CAMPAIGN OPENED: In their work behind our front-line positions, New Zealanders and Indian Corps have beaten all records in laying miles of desert railway. Supplies must reach the front line quickly, and the amount of food and material required is surprising. Tobruk, of course, serves as a supply port, but great quantities of food, water, ammunition, etc., must still come from Egypt hundreds of miles to the east. It will be noticed from the above that three sets of track had already been laid when this picture was taken earlier in the year



WATER BEING PREPARED FOR DESPATCH TO THE FIGHTING MEN: Water is a vital element in desert warfare, and as units move from point to point supplies must be found for them. Special water convoys search for water-holes and wells, and specially-designed water-trucks in charge of an N.C.O. often go many hundreds of miles out into the desert for the precious fluid. On their return to the base, the water is tested, rendered drinkable and put up into cans for distribution to the troops

TANKS LEAVE FOR THE BASE TO BE MADE FIGHTING FIT: One of the uses of the railway system now established in the desert is to take back to the base fighting vehicles in need of repair. This work can be carried out in a very short time in the properly-equipped workshops specially erected in the Middle East for that purpose. A tank cannot continue to function indefinitely, and on the quickness of its repair a lot may depend. Hence the added value of the recently-laid lines through the desert

DIGGING TRENCHES TO PROTECT MOTOR-LORRIES: One of the best means of protecting stationary motor transport against air attack is to dig in below ground-level, so that at least the lower and more vulnerable half of a vehicle is protected. To save time and manual labour, "bull-dozer" trench-digging machines have now appeared in the desert: here one of them is seen pushing a scoop and throwing up sand and rocks in front, some of which is thrown out at the sides to form protective banks

THE AMERICAN-BUILT KITTIHAWK FIGHTER-BOMBER, which has earned great praise for its part in the air operations over Libya during Rommel's offensive

All observers of the present fighting in the desert have paid great tribute to the valuable work carried out by the Kittihawk fighters operated by the R.A.F. of the Middle East Command. These aircraft are American-built, single-seat monoplanes, of which a considerable number are now in service. Not only are they heavily armed, but squadrons of them have also been equipped with a bomb-load and thrown into the battle to deal with enemy supply columns and transports at vital points. The pilots, of course, were trained as fighters; but they mastered the new technique immediately, with deadly results to the Germans. The "Kitti-bombers" scream down on their targets, release their bombs at almost "nought feet," climb away again and at once revert to their original role of high-speed fighters! They have wrought great havoc amongst the enemy concentrations

RIVER WARFARE IN BURMA AND MALAYA

Did We Miss Opportunities in Amphibian Encounters During these Two Disastrous Campaigns?

By ARTHUR BARRETT

A RIVER GUNBOAT, SUPPORTED BY AN ARMED LAUNCH, emerging from cover among the swamp reeds, to pounce on an enemy armed vessel. Had we been able to operate craft like these in good numbers on the rivers of Malaya and Burma, the campaigns in those two countries might have been somewhat different!—*Drawing by Wm. McDowell*

ALTHOUGH Kipling's marine was proud of being a "giddy harumfrodite—soldier and sailor, too"—his superiors on the General Staff have never shown much liking for amphibious operations. Things go wrong too easily. Even the Germans, past-masters of organisation though they are, would rather fight their way over 500 miles of land than five miles of water, as is shown by the manner in which they have balked at the Channel after swarming over all Europe. It is very chastening to reflect, consequently, that the Japs have fought as well on water as on land, that they appear to revel in amphibious operations, and that all through their campaign they have made extensive use of creeks and rivers to infiltrate in difficult jungle country. The Burma campaign, in particular, was a succession of river-bank actions, the Salween, Irrawaddy, Sittang and Chindwin. Without detracting in any way from a gallantly-fought campaign, one feels that if we had had in Burma a useful fleet of gunboats and minor craft, such as we had in China, or if we had been able to improvise one, events might well have gone differently.

As it was, newspaper accounts indicate that we made a certain amount of use of the Burmese river-boats, shallow-draft, stern-wheel vessels rather like the Mississippi "show-boats," but mainly for evacuation and communication duties, with improvised crews.

Though the Japs also improvised a great deal, being immensely helped in this direction by the large fleet of small craft they were able to commandeer after the fall of Penang, it appears that their transports did bring a certain number of small vessels round as deck cargo. Probably these were for the most part invasion barges, such as they had already employed in the Philippines and in Indo-China. They are about 40 ft. long, and fitted with metal screens to shield their troops, being propelled by petrol engines. These are more strictly army than naval craft. The Japanese Navy certainly possesses some useful river gunboats; the latest vessels of the Husimi class are 300-tonners, mounting one or more 3-in. guns and about half-a-dozen machine guns. They can float in about 3 ft. of water, and are armoured well enough to stand small-arms and mortar-fire. It is unlikely, however, that these vessels were used against us; their normal station is the China rivers, and the trip to Burma in approaching monsoon weather would be beyond the power of such top-heavy craft. They would also be rather large to carry as deck cargo. It is more likely that fairly large motor patrol boats were brought round, since it would be an easy matter to mount a mortar in them if their armament needed strengthening.

We ourselves had a fleet of about 20 river gunboats at the outbreak of war, most of which were on the China station, on the Yangtze and East Rivers. They ranged up to over 600 tons, and mounted up to two 6-in. guns, though the more modern vessels had either 4-in. guns or the 3·7 howitzer as their main armament. Some of them had a cruising radius of up to 4,000 miles, and had another virtue in that the 3·7 howitzer, being an army-type gun, rendered them particularly suitable for co-operating with land forces. Five are definitely known to have been lost, one (*Ladybird*) in the Mediterranean, another (*Mosquito*) at Dunkirk and a third (*Peterel*) in action with the Japanese *Idumo* at Shanghai, on December 7th.

The two other boats sunk in action with the Japs, both at Hong Kong, were the *Cicala* (625 tons) and the *Robin* (226 tons).

Two others, *Sandpiper* and *Falcon*, were presented to the Chinese Navy in February 1942, and of their present fate nothing is known. The fate of four of our latest and best river gunboats is also uncertain. It is quite possible that the Admiralty quietly withdrew them to other spheres towards the end of 1941, when war with Japan became imminent. Clearly, if left on their station their fate was certain, for these lightly armoured boats would have been subjected to endless bombing by Jap planes operating from local aerodromes. One hopes a better use was found for such boats of this type as the Sandpiper class, only a few years old. These are 585-tonners, mounting 4-in. guns as well as a howitzer, and capable of 16 knots. The *Scorpion*, well known as our Yangtze flagship, was only four years old, a 700-tonner with two 4-in. guns. One hopes some better fate was found for her than letting her remain to be sunk by the Japs.

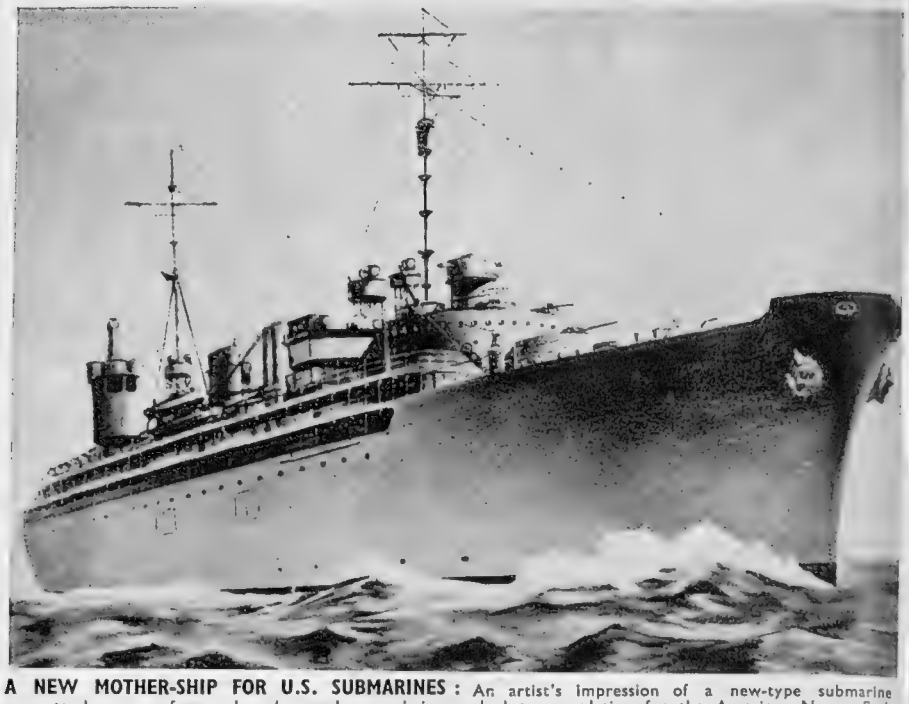
Our China river-boats have had a long history, originating in the days before the Boxer Rebellion. Their duties presented designers with a pretty problem, for the fierce streams of the China rivers, sometimes reaching 11 knots or more, necessitated great power and reliability. Yet the majority of the boats drew only 4 ft. of water, many less, this being dictated by the shallows in the rivers. They were popular ships with their crews, rarely in the news, except on such occasions as December 12th, 1937, when Jap pilots, anticipating by five years almost to a day their country's entry into the war, sank the U.S. gunboat *Panay* and seriously damaged one of ours.

A SHALLOW-DRAUGHT GUNBOAT IN ACTION ON AN INDIAN RIVER—*Drawing by Wm. McDowell*

This type of craft is specially designed for use in inland and shallow waters. She draws so little water that the stock joke is that she can "sail on a damp pavement." Her considerable beam at the same time gives her great stability, and she can mount guns of quite respectable size. The nickname of this type of gunboat is "flat-iron." This class of vessel is usually twin-screw, and the propellers are arranged in "tunnels" to get the necessary immersion—an arrangement which has superseded the old stern-wheeler in the vessels of to-day

THE U.S. FIGHTS THE ATLANTIC U-BOATS

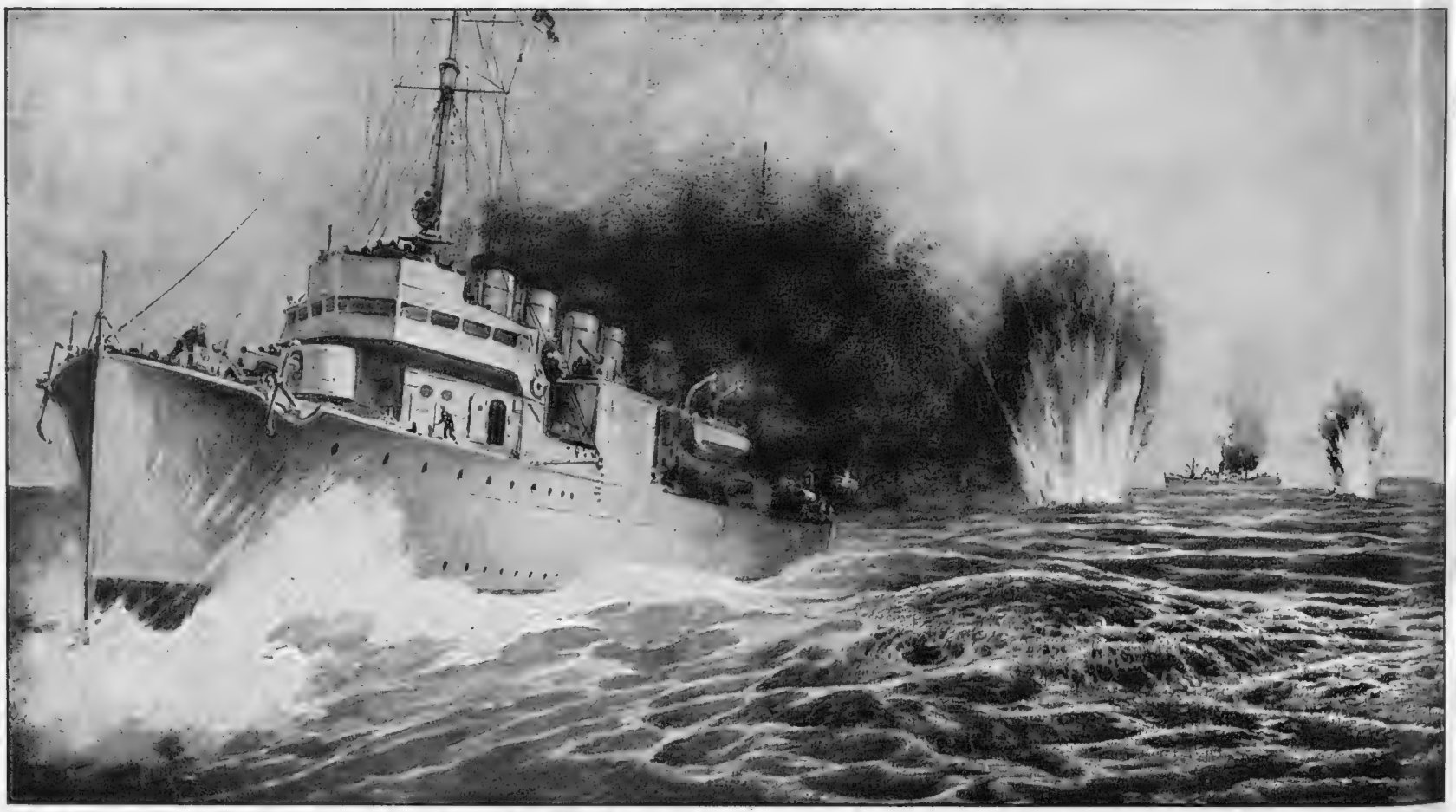
THE COASTAL AREA OF THE AMERICAS, WHERE U.S. SHIPPING HAS BEEN THREATENED BY THE U-BOATS: The danger-zone has been extended from the Atlantic seaboard of the United States to the Caribbean, and then southwards to the Brazilian coast many hundreds of miles away



A NEW MOTHER-SHIP FOR U.S. SUBMARINES: An artist's impression of a new-type submarine tender, one of several such vessels now being rushed to completion for the American Navy. Each of these will be used as a supply base and mother-ship for a fleet of under-water vessels in action against the Axis. Both main and auxiliary engines in these vessels are to be Diesels

On left—During recent weeks the German U-boats have been scoring the majority of their successes not in mid-Atlantic, but along the coastal waters of the United States and Brazil and in the Gulf of Mexico and the Caribbean. Recent losses of American tankers and cargo-boats have been described in Washington as so serious that the U.S. are soon to follow Britain's lead and convoy ships along her seaboard. Curiously enough, the Canadian Navy Minister has disclosed that "99 per cent. of the ships leaving *North* American shores are getting through safely"—clear evidence that the enemy are now concentrating on the easier targets offered by the coastal trade. Speaking over three weeks ago, a prominent politician declared that sinkings of U.S.A. merchant ships to date "exceeded the *total* losses in the first World War." (These were 531,000 tons.) Not only have merchantmen been lost, however, but warships as well. Plans are now in hand for a combined drive by aircraft and by private yachts and other vessels against the piratical U-boats operating off the East Coast of the Western Hemisphere

Below—Recent attacks on shipping have so aroused feeling in America that the Navy is now mobilising all its resources to counter the menace. The number of U-boats already sunk is considerable; but it is not U.S. policy to make public every sinking. In destroyers the American Fleet is particularly strong: even its older vessels are capable of much hard service on patrol. The vessel depicted in the *lower* drawing is one of a class of twenty-nine ships, all of which were completed during the years 1918-19. They are of 1,090 tons displacement, with a water-line length of 309 ft.: their armament consists of 4-in. guns, although this is being strengthened with more anti-aircraft weapons as each comes in for refit. Originally the U.S. Navy had eighty-three of this "flush-deck" type of destroyer; but it will be recalled that a number of them were handed over to Britain some time ago under the Lease-Lend Act—at a time when this country was very grateful for such additions to our hard-pressed Fleet



THE UNITED STATES NAVY SETS OUT TO TACKLE THE U-BOAT PROBLEM: One of her patrol destroyers (of the "flush-deck" type) launches a series of depth-charges against an Axis submarine during an attempt by the latter on an American merchantman in the West Atlantic—*Drawing by W. G. Whitaker*

ALONE AMONG THE GREAT POWERS, THE UNITED STATES ARE USING "BLIMPS" in their anti-submarine patrols off the Atlantic coast. This is only possible owing to the freedom from attack by Axis aircraft on these vulnerable airships—*Drawing by Montague Dawson*

Ever since the last war, and despite a number of disasters to this type of aircraft, the Americans have been interested in "blimps." Owing to their distance from Axis air bases and consequent absence of interference from fighter aircraft (in the face of which they would be entirely helpless), the U.S. Navy can operate "blimps" in their anti-submarine patrols with great effect. At the beginning of the present year, the Navy Department announced that the first of several squadrons of non-rigid airships had been commissioned to patrol coastal waters: it was then understood that these airships would be medium-sized "blimps." These were used by ourselves during 1914-18 for convoy purposes, when the range of fighter aircraft was nothing like what it is to-day. They patrolled above our ships and maintained a search for submarines: their many virtues for this type of work will be obvious! Those of the "J" class shown above (as, indeed, other classes as well) have apparatus whereby messages or food can be lowered to a surface vessel below, or with which a man can be hauled up to safety from a floating raft. The destroyer shown in the drawing is of the Craven class, completed in the year 1933 and considered a very successful type. These vessels have a displacement of 1,500 tons and carry a complement of 172. Their official speed is 36½ knots, but many have exceeded this on trials. They have a radius of action of 9,000 miles at 15 knots. The cost of each ranges from 4,500,000 to 5,000,000 dollars

THE TANKER FLEET IS GROWING STEADILY. These nearly-completed vessels are lying side by side at a U.S. east coast shipyard; work on them is being rushed

The Axis have been hitting hard at tankers, knowing how much the effort of the United Nations depends on oil—just as it does with themselves! For this reason, raiders in the Caribbean and Gulf of Mexico have been concentrating on the American oil-carrying fleet, with considerable success. But in shipyards all over America, new vessels are rapidly nearing completion; in some yards all records for speed in production are being broken. When the vessels seen here are fully completed, it will be found that they possess guns, and other defence features, intended to make them less vulnerable than hitherto to submarine attack. Vessels of this class are usually of 10,000 tons, as this has been found from experience to be the best size

Ship borne reconnaissance planes

"Coffin Corner"-best U-boat attack angle

Starboard wing destroyer

Transports and vital cargo ships sail in centre of convoy

CONVOY COMMODORE

400 yards

800 yards

Armed merchant cruiser

Destroyers weaving over a 1,500-yard range

HOW THE AMERICANS ARRANGE THEIR SMALLER CONVOYS, with the most vital cargoes in the centre and with destroyers zigzagging along the outside. This concentration differs in many respects from that adopted by the Royal Navy—*Drawing by L. Ashwell Wood*

In order to reinforce their troop concentrations in the South-West Pacific—and, in particular, the forces under General MacArthur in Australia—the U.S. Navy is now carrying out a good deal of convoy work. This drawing shows the methods adopted, whether troops are being convoyed or cargoes of supplies for Russia and the Middle East. In a small convoy the most vital cargoes are concentrated in the centre; destroyers zigzag around the whole formation; and changes of course are carried out to a prearranged schedule. Leading the whole convoy is a large armed merchant cruiser, converted for wartime purposes; behind this comes the Convoy Commodore in the first of the merchantmen. Then, at intervals of 400 yards come the other vessels, spaced out to port and starboard at 800-yard intervals. The rear "corners" of the formation are the most vulnerable to attack by the enemy submarines, because of the difficult angle of fire of the defence guns. To aid in the work of spotting, reconnaissance aircraft are aloft whenever conditions permit. Were the convoy a really big one, cruisers would in all probability also accompany it; in some cases, even battleships and aircraft-carriers. Bounded by oceans on all sides, the United States must depend on the success of her convoys for a victorious conclusion to the war

HOW THE AMERICANS HAVE ADAPTED CERTAIN OF THEIR MERCHANTMEN FOR USE AS TROOP TRANSPORTS IN CONVOY: Stowage for tanks, guns, ammunition, extra water tanks, and a host of other things have to be provided for (see key below)—*Drawing by L. Ashwell Wood*

In the above picture the various details are as follows:

1—4-in. forecastle gun.
2—Small arms ammunition.
3—Magazine.
4—Shells and limbers.
5—Troops.
6—Tanks as deck cargo.
7—Fifty-ton derrick.
8—Field guns.
9—Water tanks.
10—Engine-room
11—Mess rooms and officers' quarters.
12—Range-finder.
13—Anti-aircraft gun.
14—Tanks as deck cargo.
15—Machine-shop.
16—Stores.
17—4-in. poop gun.

U.S. CONVOY METHODS IN THE PACIFIC

A "SUB.-BUSTER" OF THE U.S. COASTGUARD SERVICE CO-OPERATES WITH A "BLIMP": In the first four months of the war, it has been estimated that the United States lost 180 merchant vessels. To-day, patrol bombers, "blimps" and "sub.-busters" are co-operating to fight the menace of the U-boat. Hundreds of fast, 83-ft. vessels are now being built for the Coastguard Service: one such is shown above. They can be cheaply and quickly built, and soon there will be so many of them that they will be able to convoy coastwise vessels over the course of their entire journey. These little vessels are much feared by the U-boats, for they are fast, manœuvrable, and carry depth-charges, machine-guns and sensitive listening devices. They usually carry a crew of ten

A PROBLEM PECULIAR TO THE AMERICAN SEABOARD: How the "glow" from American cities along the coast throws up merchantmen at sea to the advantage of prowling U-boats at night. On the left is an actual photograph showing a part of the U.S. eastern seaboard by night.—*Drawing by L. Ashwell Wood*

When a submarine lies off the American coast—both east and west alike—at a distance of about 25 miles, any vessel passing closer inshore is thrown into vivid relief in the manner depicted above. This is due to the "glow" emanating from the brilliantly-lighted cities lining the coast. To take advantage of this to the full, the U-boat must, of course, lie well off-shore: were its periscope directed out to sea and *away* from the coast the passing vessels would naturally be swallowed up in the gloom of night. The Americans are fully alive to this danger, and steps have now been taken to dim the unwelcome brilliance. Hitherto, it had not been considered necessary to enforce any sort of black-out on the American Continent owing to the great distance from Axis air bases. A number of successful attacks on U.S. shipping quite close inshore, however, demonstrated that U-boats were availing themselves of this aid provided by American citizens!

THE RAID ON SYDNEY HARBOUR

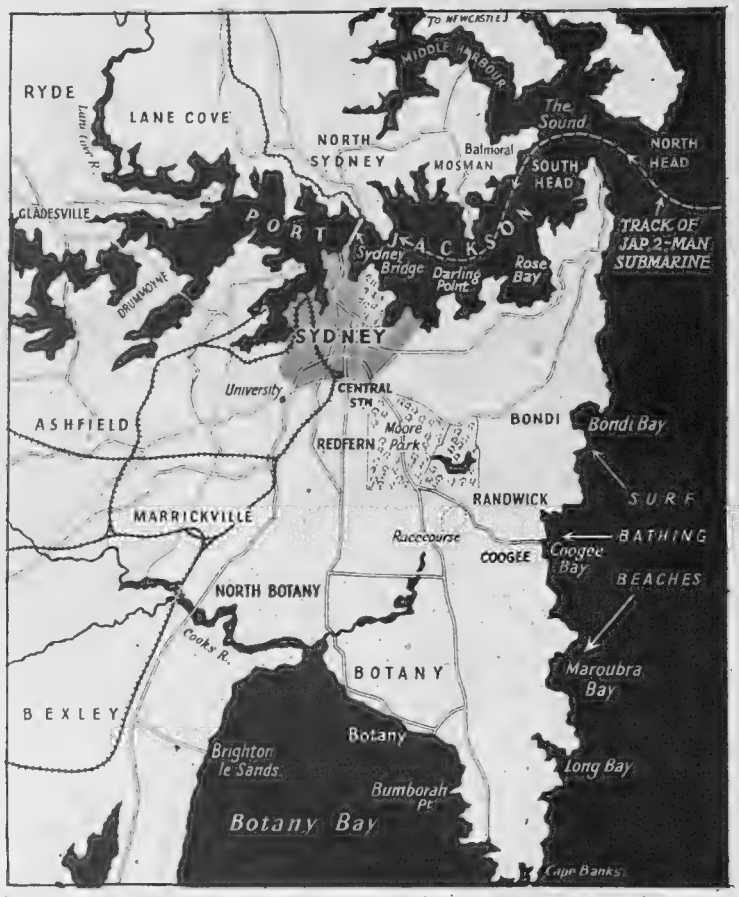
The Attempt by Three Jap Midget Submarines to Repeat their Pearl Harbour Performance

In their attack on the U.S. Fleet at Pearl Harbour, the Japs made use of midget, two-man submarines. Using these same craft last week, they made a similar attempt on Sydney Harbour. The result was that all three vessels are believed to have been destroyed—one by gunfire and the others by depth-charges. The only damage done was the sinking of an old ferry-boat converted into a depot ship.

It is assumed that the submarines were launched from a parent-ship off the Australian coast, and that they entered the mile-wide harbour by a small shipping opening through the Heads. Sydney Harbour is one of the deepest, safest and most beautiful ports in the world: it is completely landlocked, but is accessible from the Pacific by a narrow passage which is easily blocked. It is the home station of the Royal Australian Navy.

A fisherman outside the harbour entrance in the afternoon reported that he had seen mysterious bubbles rising on the surface of the sea. Whether this had been conveyed to the authorities is not stated; but that night the defences—searchlights and guns—were apparently quite ready for the intruders! The attack was made at 11 p.m.

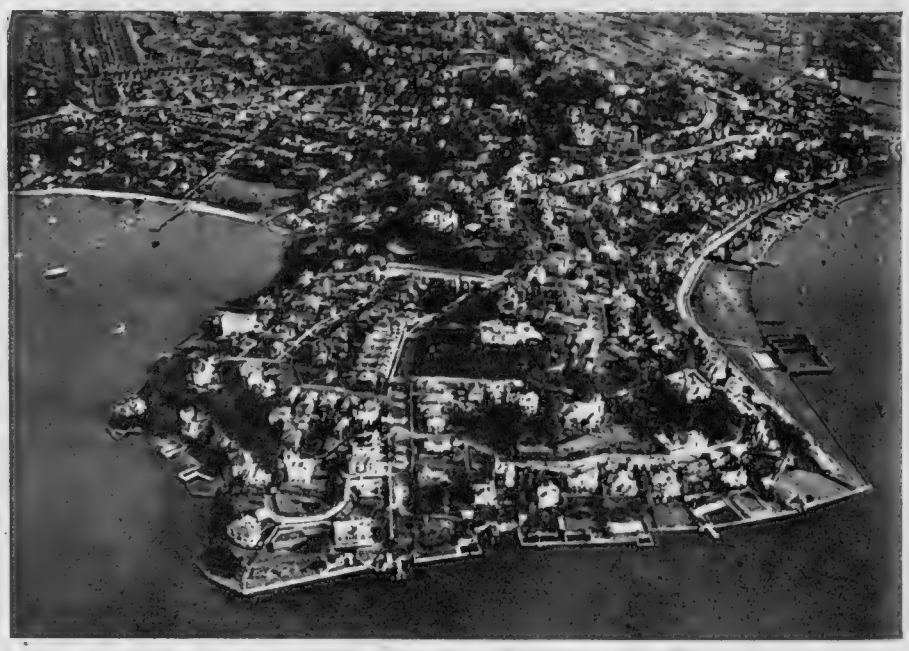
SYDNEY TO-DAY IS A GREAT CITY, and the chief fortified naval station of the Commonwealth. This aerial view shows the magnificent new bridge which spans the busy harbour, and the blocks of big buildings erected within recent years



A PLAN OF THE CITY OF SYDNEY—The entrance to the harbour is by way of the Heads, to the north-east. There are a number of graving docks and floating docks and patent slips

AN AERIAL VIEW OF ROSE BAY, to the east of Sydney proper. Away to the right is the mile-wide entrance between the outer North Head and the inner South Head. Presumably the Jap submarines entered through this channel

ANOTHER VIEW OF THE GREAT BRIDGE, and the main industrial centre of the city, where the big buildings have been constructed on the same plan as the American skyscrapers



AT DARLING POINT, TO THE EAST OF THE MAIN BUSINESS AREA, are many of Sydney's most beautiful homes, standing in extensive grounds. The Jap submarines must have sailed past this Point during their attempt. Double Bay is on the left of the Point and the Double Bay Wharf is seen. On the right is Rushcutter Bay

HOW THE R.A.F. MAKE THEIR WARTIME AWARDS

The Methods by which Decorations for Gallantry and Leadership are Decided, and What is Implied in the Winning of the Victoria Cross, Distinguished Service Order, Distinguished Flying Cross and other High Honours

Described by CHARLES GRAVES

AT frequent intervals we read lists of awards for gallantry conferred by the Monarch on officers and airmen of the Royal Air Force. But how, why and how many of them have been granted since the outbreak of war? The answer to the third part of the question is: Victoria Cross, 9; D.S.O., 119; Bar to D.S.O., 18; D.F.C., 1,666; Bar to D.F.C., 133; Military Cross, 11; D.F.M., 1,366; Bar to D.F.M., 27; Military Medal, 41; O.B.E. (Military), 145; A.F.C., 302; Bar to A.F.C., 5; A.F.M., 66; Bar to A.F.M., nil.

It will be observed that I have left out the statistics for the George Cross, the George Medal, the British Empire Medal, not to mention the C.B. But at the moment I am concerned with the decorations that are most normally won by the R.A.F.

Having had a somewhat extensive series of contacts with the Royal Air Force at Fighter Command stations, I had somehow acquired the impression that there were certain rules in connection with the award of the D.S.O., D.F.C. and D.F.M. to officers and airmen of this Command. In my misguided way I had thought that a fighter pilot was sure of his D.F.C. after getting seven "confirmed," a bar to his D.F.C. if he secured another seven "confirmed" and a D.S.O. when he reached the twenties. Equally, I got the erroneous idea that a sergeant-pilot could be sure of his D.F.M. after six "confirmed," and a bar to it after he had twelve "confirmed," though he might (I thought) secure his bar earlier if his victims had been singletons. I use the word "erroneous" because the Air Ministry, apparently, has no official scale of accomplishment for the recommendation to His Majesty the King of officers and airmen for various types of award. And admittedly, if you read the rules for eligibility of the D.S.O., D.F.C. and D.F.M., it will be seen that the D.S.O. is granted for distinguished services under fire, or under conditions equivalent to service in actual combat with the enemy; the D.F.C. and D.F.M. are granted for exceptional valour, courage or devotion to duty whilst flying in active operations against the enemy.

The Military Cross and Military Medal can be respectively awarded to officers and airmen only for gallantry on the ground in face of the enemy. (The George Cross and the George Medal are also granted for gallantry on the ground, but not in face of the enemy.)

In the case of the Victoria Cross, no one below the rank of the Air Officer-in-Chief of the Operational Command can put forward the name of a candidate to the Air Ministry. The recommendations for the other awards are put forward in the first instance by the squadron commander by way of the station commander, group, and so on.

Again, it is my impression that some squadron commanders are more reticent or less literary in their descriptions of feats which they think worthy of an award. But no doubt allowances are made for this by the Awards Committee. This consists of Air Marshal Babington, Air Marshal R. H. Peck and Air Commodore A. L. Fiddament, who has recently replaced Air Commodore Douglas Colyer as the third of the trio. The Recommendations Board sits approximately once a month, and the majority of the recommendations are usually approved. I cannot give more exact statistics beyond that the nine Victoria Crosses granted up to last month came from a total of twelve recommendations. Of these, seven have gone to Bomber Command, one to Coastal Command and one to Fighter Command.

The basis on which the Victoria Cross is awarded has altered considerably since the early days. Until the South African War, no Victoria Cross could be awarded posthumously. During the South African War the posthumous award was permitted, but the gallant fellow to whom it was awarded had still to be alive when the recommendation was received by the Commander-in-Chief. This continued until the later years of the World War, when the rule was altered to its present form—that the recommendation has to be initiated by the local commanding officer while the officer or man is still alive.

In the case of no other decoration can an award be made posthumously. This may sound somewhat hard. But the reason is simple. It is presumably to prevent compassionate awards.

The other day Mr. G. C. Ammon, M.P., did his best to play into the hands of Goebbels by discussing the relative merit of the D.F.C. and the D.F.M., saying that officers and men of the same air crew should be entitled to the same "gongs." For a long time Goebbels has been trying to create class distinction in the armed Forces, as well as among the civilian population of this country. Needless to say, the R.A.F. laughed collectively at Mr. Ammon's ignorance. For the D.F.C. and the D.F.M. are of exactly equal merit, just as the D.S.O. and the D.C.M., or the Military Cross and the Military Medal are exactly equal. (Actually, the D.C.M. is probably "better" than the D.S.O.) If it comes to that, the D.F.M. is preferable to the D.F.C., if only because no holder of the D.F.C. can win the D.F.M., whereas there is nothing to stop an airman with the D.F.M. from securing his commission and bringing off the double by earning the D.F.C.—as has frequently happened. What's more, the D.F.M. carries with it a gratuity of £20 on discharge, or, if the recipient is discharged to pension, an extra sixpence a day for the rest of his life.

In the last war, whatever the authorities might say at the time, there were definitely cases of collective awards to squadrons which had done particularly well—it being left to the senior surviving officer to decide who was to have what. In this war there is no question of such a thing happening, though it would scarcely be surprising if, after the thousand-bomber raids on Cologne and Essen, it was decided that an operational sortie of this magnitude must automatically involve a minimum number of awards for gallantry.

In the last war, too, the Victoria Cross was given to fighter pilots who had shot down a particularly large number of enemy aircraft. As far as I can recall, Captain Ball, V.C., received his Victoria Cross after he had got forty-eight. And this was regarded more or less as a yardstick for other winners of the Victoria Cross who followed him In this war there is no question of getting a Victoria Cross purely for a number of victories in the air.

Another point. It was a fairly general idea in the last war that if an officer had won two bars to his D.S.O., he was sure of the Victoria Cross if he performed a similar feat of gallantry which had earned him two bars to the original D.S.O. I understand that in this war there is no technical reason why an officer should not go on collecting bars to his D.S.O. till the cows come home, without getting the V.C. In point of fact, the ribbon of the D.S.O. is not long enough to carry more than two bars, and so the third and fourth bar would demand another strip of D.S.O. ribbon to carry them.

So far I have said nothing about an immediate award. Well, this is very rare, and can only be given on particular occasions for an individual act of extreme gallantry. It is granted by the Air Officer Commander-in-Chief, his power being delegated to him for this purpose by the King.

Medals for war service were not issued generally to all the officers and men engaged until well into the nineteenth century, the only exception in Great Britain being the medal for the Battle of Dunbar (1650). Throughout the Peninsular War (I quote Captain Dorling, D.S.O., R.N.), medals were only conferred upon senior officers, and it was not until 1848, by which time many of the veterans had died natural deaths, that the Military General Services Medal, with bars for the Peninsular actions, was issued. So participants in the Battle of Albuera (1811) went unrewarded for thirty-seven years. The only exception to this was the Battle of Waterloo, for a medal was issued a year later. After the Battle of the Nile (1798), a Mr. Davison issued a medal at his own expense to every officer and man engaged. These were highly prized by the recipients, and cost the donor £2,000. For the Battle of Trafalgar, too, a Mr. Boulton of Birmingham received permission to strike and present a medal to every British officer and man engaged on October 21, 1805. According to modern ideas, it is surprising to think that it was left for private individuals to reward officers and men who had taken a gallant part in such great and far-reaching victories.

PS.—There is a widespread belief that medals won by fathers may be worn by sons, but there is nothing to support such an idea. It is true, of course, that medals of deceased officers and men, including the Victoria Cross, are usually given to their nearest relative, but this does not imply that they are to be worn.

HEROES ALL! AFTER THE "FOUR-FIGURE RAID" ON THE RUHR: A few of the R.A.F. crews of Bomber Command who took part in the second of the great assaults on Germany photographed after their safe return to Britain

MEMORIES OF FIFTY YEARS—

An Experiment in Autobiography—XII

By J. G.

THOMAS CREEVEY.—Lytton Strachey, in his *Books and Characters*, published in 1922, put in a typically light and contemptuous footnote on Thomas Creevey. His information, of course, was all derived from Sir Herbert Maxwell's *Creevey Papers*, which had been given to the world (and delighted it) in 1904.

Thomas Creevey, a Whig partisan, well known in his day, a placeman and letter-writer, lived his life out between the era of the French Revolution and the accession of Queen Victoria, covering the long decline and the brief triumph of the Whigs, in an atmosphere of tense political strife and zest. Twenty years after his death, his name was completely forgotten and remained so until 1904. He is still commonly and erroneously described as a *diarist*; in fact, the 5,000,000 words of his papers are largely made up of his letters to his stepdaughter, Miss Ord. His diaries, if any, have been lost or were deliberately destroyed by Lord Brougham. Sir Herbert Maxwell (as he freely admitted) made no effort to discover any details concerning Creevey's private life and satisfied himself and his readers by "skimming some of the cream" of Creevey's sparkling gossip.

Strachey's slight and contemptuous dismissal of Creevey as an imp of history and a rather sordid place-hunter led me to take up the cudgels for this cheerful fellow, and to make some preliminary researches into the mystery man's mysterious lacunæ. These I embodied in an article in the *Quarterly* early in 1933.

John Murray's had published *The Creevey Papers*, and Sir John Murray was aware that in that vast mass of papers, still stored in Northumberland, a great deal of "cream" still remained to be skimmed. He persuaded the owner, Mr. Blackett Ord, to let me have a second "look over" with a view to a further publication of *Creeviana*; and a day came when I left 50, Albemarle Street for my home in Surrey with my roomy Morris saloon literally crammed with the Creevey Papers, certainly not less than 5,000,000 words of "virgin soil" containing gold-bearing potentialities.

I read every word. No book I have ever undertaken gave me the half of that labour, and only one book gave me the same degree of excitement and pleasure and sustained interest.

When at last my *Creevey's Life and Times* emerged in 1934, I had unravelled a fair amount of the tangled, obscure skeins of Creevey's private life, and was able—thanks to my subject's wit and energy and enthusiasm—to produce quite a jolly and instructive and novel companion volume to Maxwell's *Papers*. But—and this is the tragedy and rule of all truth-searching biography—the full and final truth only emerged when those who had it to supply had read my book and were in a position to correct or amplify my guesses and my facts.

The Truth about Creevey.—Even in the latest edition of my *Creevey's Life and Times*, the final facts which we are likely ever to know concerning Creevey's origins were not all included. For the truth's sake, I feel moved to marshal here the salient facts which have (since that edition) come to my knowledge.

(1) The sixteenth Earl of Derby first gave Sir Herbert Maxwell the information that "Thomas Creevey was, in fact, the natural son of Viscount Molyneux, first Earl of Sefton, and that his mother was, after the liaison, 'conveniently' married to Captain William Creevey, a merchant of Liverpool." Evidence of the truth of some such liaison I found in abundance in the Creevey letters, suggesting a mystery of birth which linked Creevey with the Molyneux. But:

(2) Phœbe Creevey was married to William Creevey *before* such liaison could have taken place and, if it occurred, it occurred after her marriage, possibly during a period of William Creevey's absence abroad or imprisonment.

(3) This Captain William Creevey was a householder in School Lane, Liverpool, in 1766-67. He was in truth an African Coast slaver and was twice imprisoned by the French. He married Phœbe Prescott in 1764 and Thomas, the second child, was born in 1768. A few months later William Creevey died.

A PHOTOGRAPH FROM ST. HELENA which has created considerable interest amongst ornithologists: the St. Helena Wire Bird at its nest of two eggs—a very rare picture

The two pictures reproduced here were sent as a matter of ornithological interest to Dr. H. A. Tempany, Agricultural Adviser to the Colonial Office, by Mr. M. Halcrow, the Agricultural Officer at St. Helena. They were taken by the latter, together with Mr. J. P. Cartwright: a Reflex Voigtlander camera was used for the purpose on a tripod, with some 30 yards of black thread. The eggs are in a slight depression in rather bare land which has recently been planted with sweet-potato slips. The date was October 26, 1941, and the place Guinea Grass, on the island of St. Helena. According to Dr. Carmichael Low, the bird is usually known as the Ringed Plover of St. Helena, or, to give it its scientific name, the *Charadrius - sanctæ - helenæ*. Presumably it is the counterpart in this historic island to our own plover. St. Helena is a small island in the South Atlantic, 10½ miles long and 6½ wide: covering an area of 47 square miles, it is a little larger than Jersey, to which it may be compared. It is 4,470 miles from Southampton and 1,690 from Cape Town. The climate is mild and its principal product is flax. Whether or not the Wire Bird has ever found its way to these shores must be left to the ornithologists!

THE NEST AND THE EGGS, photographed with a bunch of ordinary Yale keys, to show the relative size

From these facts, two things emerge. The Molyneux "liaison" took place *after* Phœbe's marriage; and Sir Herbert was wrong in supposing that "Old School Lane" was Creevey's reference to his private school at Hackney. It was the Blue Coat School Lane, Liverpool, Creevey's birthplace.

(4) Creevey's mother, who was of the humblest origin, married a second time and survived as Mrs. Lowe—a very respectable marriage—until 1812.

The remaining data, published in my *Creevey's Life and Times* concerning Creevey's origins, early years and school life, remain substantially correct (except to adjust it to meet the facts). I do not myself doubt that the theory that Creevey was a natural son of the first Earl of Sefton is as fully substantiated as circumstantial evidence permits.

Romance of a Byron Discovery.—The publication of the new *Creevey* brought me a great deal of interesting correspondence and contact with men of letters in the fields of history and biography, among them Dr. Hammond, Lord Crewe, Lord Ernle and Mr. Roger Fulford, and my enthusiasm for biographical research grew keener every year.

I vividly remember the early thrill when I took a hundred-to-one chance in the Probate Department of Somerset House and asked the official to produce for me a photostat of the Will of Thomas Creevey. In a very few minutes the document emerged . . . and its provisions made clear two or three minor mysteries which had laid hidden for a century, and had keenly puzzled a new generation of Creevey fans for thirty years.

Another "find," which intensely interested me, was the rediscovery, in a mass of disordered family papers, of a packet of letters, which had lain concealed for exactly a hundred years, written by Byron in his Italian phase, shortly before he went to die for Greece, to his cousin, the wife of Nelson's Hardy.

These letters were in Byron's very best vein, witty and sane, and they settled for ever a point of dispute and controversy which had, since Byron's death, constantly engaged Byronians—the identity of the lady to whom the lyric "When we two parted" was addressed. A suppressed stanza—and a very bad one—given by Byron to Lady Hardy, established Lady Frances Webster as the lady of the lyric and not (as some held) Mrs. Leigh. This packet of letters also threw new light on Byron's relations with Lady Blessington and Leigh Hunt. They were later incorporated (and formed the chief interest, I confess) in a short biography of Nelson's Hardy and of his wife which I published in 1935.

In order to publish these letters, I was advised by the scrupulous Sir John Murray (IV) to buy the copyright in them from the personal representative of Byron's estate. This I did, and I now possess the copyright (not always respected, I fear, by Byronist writers). There was romance in that transaction also. The copyright in unpublished matter by Byron at that time was vested in a solicitor in a small way. I do not suppose he had ever read a line of Byron. He had become Byron's personal representative through a remarkable series of intestacies following the death of Lord Broughton (Hobhouse), who was Byron's executor.

A Damning Admission.—Writing, as I am, in the tense crisis of a world war for survival, I appreciate it that these small literary discoveries must strike the reader as very small beer in the way of "sensation." Nevertheless, a curious fact stands out from an honest self-examination. I experienced some of the major thrills of warfare on the Western Front in the First World War, and I tasted the fearful, bitter draughts of anxiety and apprehension which followed our major reverses in the Second World War and the wine of our triumphs also; yet none of these experiences afforded me one-half of the thrill which I have felt at the moment of these literary discoveries or, for that matter, at the burning minute of waiting for the first pack of grouse on a famous grouse moor on the rare occasions when I have been in a party of first-class shots. A damning confession, perhaps, but the naked truth.

(The next article in this series will be published in the issue of June 27)

THE SHAFTESBURY HOMES AND "ARETHUSA" TRAINING SHIP

One subscriber, in sending his gift, enclosed a note to the Captain-Superintendent, speaking of the fine impression made by two old *Arethusa* boys. There is an unusually long waiting list, as funds will not permit the extension of this century-old work. All possible help is needed. Address: 164, Shaftesbury Avenue, London, W.C.2.

BOMBER FERRY to AFRICA

How the U.S. Air Forces Operate the New Supply Route by Air Across Africa to the Middle East

A U.S. ARMY CANTEEN AT AN AFRICAN AIRPORT: This is on the Bomber Ferry route to the Middle East from America; here U.S. planes en route to the fighting zones are serviced midway on their journey

LOCAL COLOUR! A native canteen worker whose building is labelled in a manner to attract the U.S. Ferry pilots

A DOUGLAS AIRCRAFT BEING SERVICED at one of the airports in the desert along the route operated by the U.S. to the Near East

OPEN-AIR SLEEPING IS THE RULE at some of the new bases along the Ferry Command's trans-African route. Nets to keep off the mosquitoes are an essential. This picture shows R.A.F. pilots at the Pan-American station at Maidugari, in Nigeria

U.S. ARMY FREIGHT-CARRIERS IN ASIA, WAITING TO BE REFUELLED BEFORE PROCEEDING TO INDIA. A great quantity of necessary equipment is carried by these huge transport planes, and their work is an integral part of the U.S. effort to reinforce the East and Middle East

ON THE U.S. FERRY ROUTE ACROSS AFRICA: R.A.F. planes on one of the many desert aerodromes, with their propellers and engines shielded against the all-pervading sand and dust

Sixty-one days after President Roosevelt announced the U.S. Air Forces Ferry Command's route of military supplies across Africa, the first giant plane had taken off on its 2,500 miles' hop from the West Coast of the Dark Continent to Allied bases in the Middle East and Egypt. To-day, seven months after the inception of the idea, the African Ferry Command is a fully-fledged transcontinental airline, built up from nothing by General Robert Olds, Ferry Command, and a contingent from Pan-American Airways (headed by George Kraigher, a Yugoslav veteran of the last war). To equip and supply a chain of bases across Africa, 5,000 cases of construction equipment, 2,000 cases of electrical equipment, 5,000 bundles of structural steel and 1,000,000 board feet of lumber, and countless 44-ton, pre-fabricated houses had to be shipped from the United States. Disease-prevention measures have been worked out to protect the Line's pilots—each of whom had to be in perfect health, and have 800 flying hours. Now, only one per cent. suffer from malaria, as against 50 per cent. last autumn

The World of Books—By Vernon Fane

HISTORY, BIOGRAPHY AND HORTICULTURE

American History Without Tears ; The Last Bourbon King ; A Peripatetic Raconteur ; A Garden Book to Cherish

JUDGING by the ever-increasing clangour about reconstruction and the post-war world, anybody would think that this war was as good as won. As a counter to the soothsayers of the Sunday and weekly Press, and the cohorts of wishful-thinking morons who make them possible, it might be as well if somebody in authority referred to the latent truth in the old English proverb about not hollering until you're out of the wood. A good deal of ink, a lot of oratory and some pretty dialectic skill are being wasted on what we are going to do to Germany after the war. At this time and date it seems more important to determine what we are going to do to Germany during the war.

On that score, the unanimous answer is, of course, that the Nazi regime must be utterly destroyed. Without necessarily identifying oneself either with Lord Vansittart or with the scarlet clerics, I think one is entitled to turn the question round and ask what the Germans are going to do to us after the war. Are we, for instance, going to be tricked into another Versailles Treaty, behind which the whole German nation will be allowed to re-form and prepare themselves to launch another attack upon our children ?

An historian has said that the seeds of all major wars are sown in the peace treaties of previous ones. With the terrible lesson of Versailles within the living memory of all of us, does it not seem that this is the moment to look as searchingly at our post-war selves as we are inclined to do at the post-war state of our enemies ?

Nobody in his senses is going to deny that an absolute essential to a speedy and conclusive victory and a lasting peace is the completest possible Anglo-American understanding. We are constantly being told about the weaknesses of the presentation of the British war effort in the United States, and a lot of us are aware that a lack of understanding of the American people is a manifestly chronic state among our own people. If it is as apparent as it should be that a sound, lasting and just peace can only be built upon Anglo-American accord, then it is surely time we set about turning that factor into a reality.

Therefore I welcome **THE STORY OF THE AMERICAN PEOPLE**, by Dr. C. F. Strong (Hodder and Stoughton. 7s. 6d.), which the author modestly describes as intended to be a contribution to Anglo-American understanding. He quotes Mr. Churchill in his historic address to Congress in Washington on Boxing Day, 1941 : " In the days to come the British and American peoples will, for their own safety and the good of all, walk together in majesty, in justice, and in peace."

Dr. Strong has done his job well, compressing a large subject into 300 pages, writing it in popular language, plentifully illustrating it and contriving to make it exciting. It is undoubtedly true, as he says in his introduction, " that many English people have an entirely confused, distorted and erroneous impression of American life and history, gained almost entirely from films which depict scenes of a bogus romanticism, an artificial glamour and an over-emphasised sordidness."

He might have added the hangover from the Whig historians omnipresent in our school curriculums, in which American history is consistently played down. I seriously suggest that this is a book which cannot have too wide publicity.

A long way down the scale of importance at this time is a biography entitled **KING ALFONSO** (Faber and Faber. 12s. 6d.), by Mr. Robert Sencourt. Certainly this is a book which had to be written, and possibly no more gifted contemporary could be found to write it, but whether its publication is timely is a matter for conjecture.

Alfonso XIII was born a king and a Bourbon, and was destined to live through a period in which it was difficult to remain a king and more than something of a handicap to be a Bourbon. Alfonso survived the humiliation of his country in the Spanish-American War, following the breakaway of the South American Republics. Alfonso pursued a dubious policy of equivocation throughout the last European war, and it was possibly owing to the strong and affectionate hold the British monarchy retained upon its people that he managed to keep his popularity in this country.

He was a sportsman in the best and worst senses of that hackneyed word, and his courage and personal charm went without question. Whether at the same time he was imbued with the statesmanlike and moral qualities ascribed to him in this biography is a matter for dispute among future historians.

ONE MAN'S FURROW (Hurst and Blackett. 10s. 6d.) might well be another man's nervous breakdown, because Mr. John Cameron-Watson, whose autobiography this is, has been, by his own showing, a man of tremendous physical energy, who writes as breezily of taming wild horses in the Argentine as he does of fighting forest fires in Idaho, and who, after some years spent, most suitably, writing stories of the Wild West, is now a very active A.R.P. warden in Yorkshire.

Mr. Watson writes, again suitably, like a man of action, and is not at his literary best in introspection, but set him to remembering a morning in (or is it on ?) the pampas, or an adventure down a Rocky Mountain coal-mine, and he is first rate. He was all through the last war, though those are experiences which he crowds into five or six pages, and before peace was signed he was in Greece, working on a remote agricultural concession. From there, rather the worse for malaria, he went to Canada, and in Canada and the Western States he worked for the next ten years or so as a ploughman, a miner, a mule-driver, a lumberjack, a ditch-rider, a haymaker, a deck-hand on a freighter, and then, for a long stretch again, a worker in one of the many different activities of a logging camp.

During all this period, Mr. Watson was consistent in only two things. He would not stay in a job long enough for it to get monotonous and exasperating, and on many occasions left with all the satisfaction of a full-dress row with his immediate superior ; and he was an inveterate traveller. He travelled, as the Americans say, the hard way : in open trucks, or as a " bindle stiff " on the rods, or, more simply, on foot. Here is a typical passage. He had been working on the road-bed of a new railway through Utah into Wyoming. " But I got fed up with the strong winds which never cease to blow, it seemed, over the vast cattle ranchlands of Wyoming."

" I beat my way alone to Cheyenne, then up the C.B. & Q. Railway as far as Laurel, Montana, where . . . I headed west intending to look for a haying job." In fact, he found work as a cordwood cutter, but it was a change from his last job, and, for a space, that was enough.

He found the hay-mowing job that summer, but not before he had done a lot more tramping and shared a camp or two with disconcertingly friendly bears.

Most surprising of his adventures, when one comes to consider it, was his discovery of writing, on which he made as determined an attack as he might have made on a log jam on a half-frozen river. He wrote in Arctic rooming-houses, in shacks, anywhere that paper and a minimum of privacy were available. He bought a dictionary and a Thesaurus, and his energy and his determination must have been magnificent. It is heartening to think that, after many more strictly muscular jobs, he began to establish himself as a short-story writer, and, with this book, as a good descriptive *raconteur*.

Finally, for a book in the most distinct contrast to these others ; a book for keen gardeners and would-be gardeners, and even for those gardeners whose activities are confined to the reading of illustrated seed catalogues. **ALPINES IN COLOUR AND CULTIVATION** (Collins. 17s. 6d.) is a book to cherish, not only for its exhaustive and masterly treatment of the subject—and one need not own a rock-garden to appreciate that—but for its presentation, which is really a joy.

Mr. T. C. Mansfield has included eighty superb colour-plates of flowers, all of them excellent reproductions, and has contrived an ingenious way of captioning them. So that there shall be no confusion over which flower bears which impressive name, a loose, transparent sheet is included in the book, and it is divided into twenty lettered squares. When it is laid over the colour photograph, it can be used like a map indicator to show that, for instance, the white, star-shaped flower (squares OPS) is indubitably *Lewisia brachycalyx*, and the little yellow, cowslippy things (RST) really *Morisia monanthus*.

Not nearly as complicated as it sounds, and conceivably a pastime for later, blacked-out evenings. The species of flowers have been arranged in alphabetical order, so that the book can be consulted as a practical guide and, as concisely as possible, each flower's habitat and habits are given. One might buy it purely as a picture book, though this is hardly what the authoritative text deserves. One last quality : it does not describe any plant that is unobtainable.

SIR GILES GILBERT SCOTT, R.A., PLANNING TO REBUILD COVENTRY CATHEDRAL : Designer of many famous buildings, Sir Gilbert Scott is now engaged on the task of preparing plans for the new Cathedral which will be built at Coventry. His design has to be planned round the tower, apse and outside walls which were unaffected by the bombing and which are to be incorporated in the new building. In this picture Sir Gilbert is studying old drawings prepared in 1884 for his uncle, John Scott, who carried out the restoration of the cathedral just after that year

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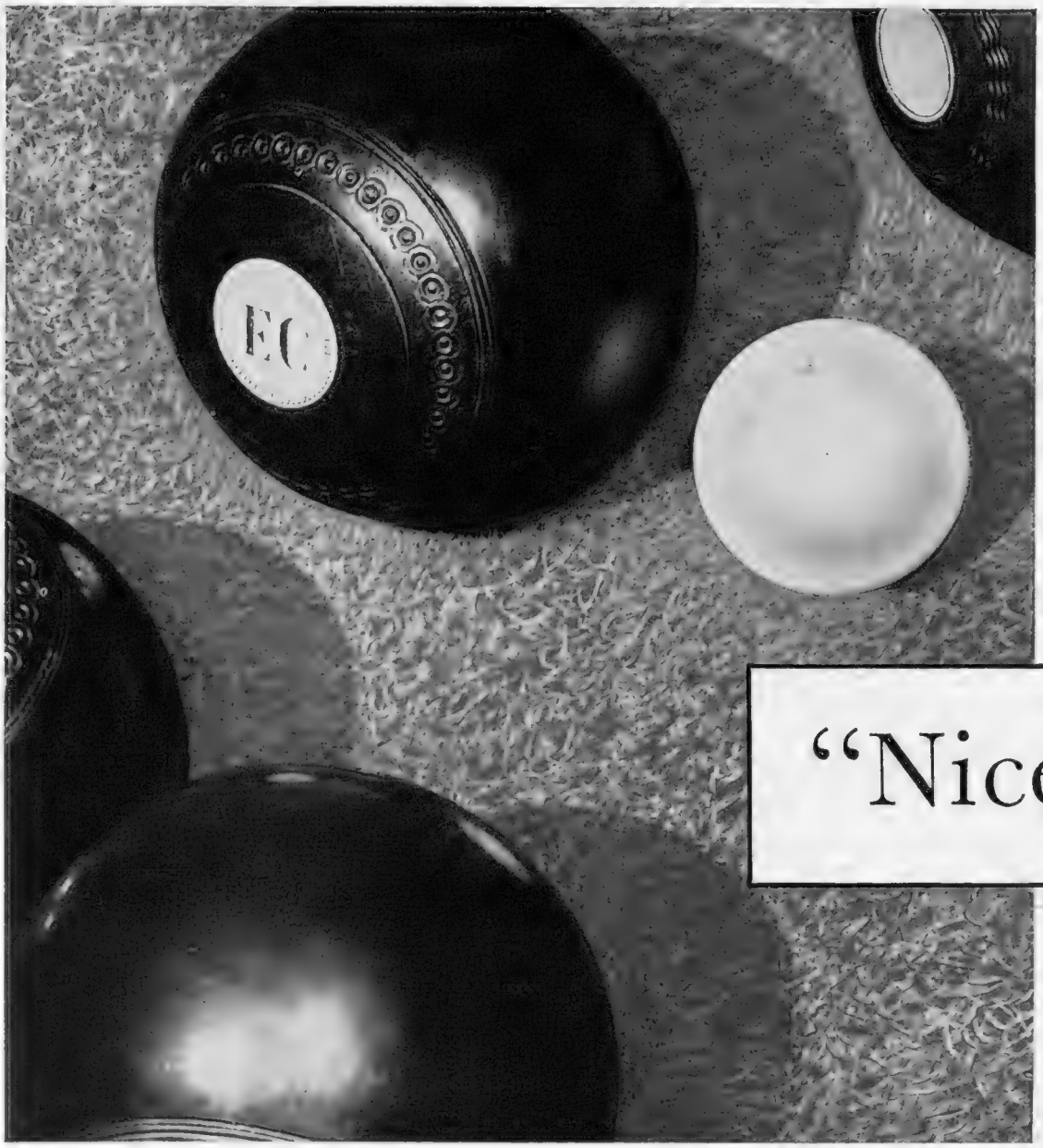

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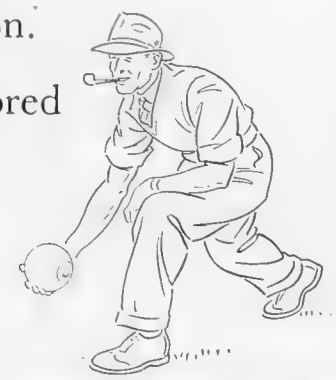

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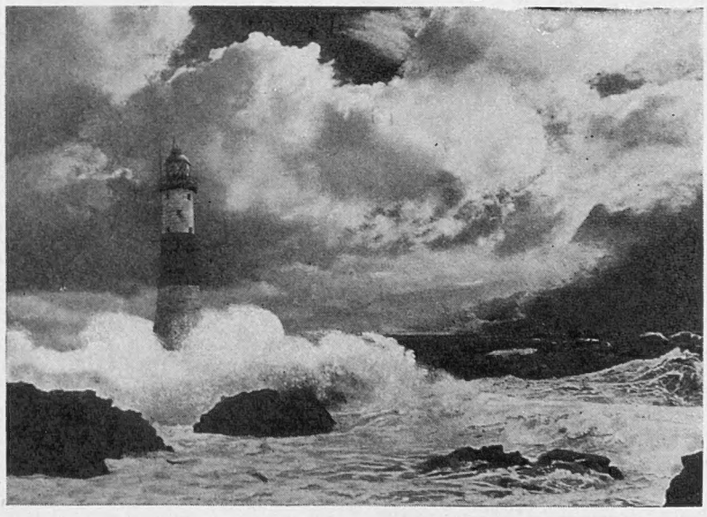

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